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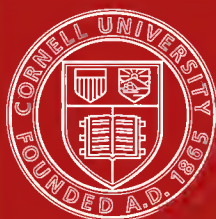
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Constitution, list of meetings, officers



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CONSTITUTION
LIST OF MEETINGS
OFFICERS
COMMITTEES AND MEMBERS
OF
The American Association
FOR THE
ADVANCEMENT OF SCIENCE,
FOR THE FORTY-NINTH MEETING
HELD AT
NEW YORK, N. Y.,
JUNE, 1900

PUBLISHED BY THE PERMANENT SECRETARY

1900
~

EDITED BY
L. O. HOWARD,
Permanent Secretary.

The Chemical Publishing Company.
EASTON, PA.
1900.

Officers Elected for the New York Meeting.

PRESIDENT.

R. S. WOODWARD, Columbia University.

VICE PRESIDENTS.

- A. Mathematics and Astronomy—ASAPH HALL, JR., Ann Arbor University.
- B. Physics—ERNEST MERRITT, Cornell University.
- C. Chemistry—JAMES LEWIS HOWE, Washington and Lee University.
- D. Mechanical Science and Engineering—JOHN A. BRASHEAR, Western University of Pennsylvania.
- E. Geology—JAMES FURMAN KEMP, Columbia University.
- F. Zoology—C. B. DAVENPORT, Harvard University.
- G. Botany—WM. TRELEASE, Shaw Botanic Gardens.
- H. Anthropology—AMOS W. BUTLER, Indiana Board of Charities.
- I. Social and Economic Science—CALVIN M. WOODWARD, Washington University.

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From the Association at Large—To hold over until successors are elected. A fellow from each section—C. L. DOOLITTLE, Philadelphia, Pa. (A); H. T. EDDY, Minneapolis, Minn. (B); H. N. STOKES, Washington, D. C. (C); H. S. JACOBY, Ithaca, N. Y. (D); J. J. STEVENSON, New York City (E); A. M. BLEILE, Columbus, Ohio (F); W. J. BEAL, Agric. College, Mich. (G); W. J. MCGEE, Washington (H); JOHN HYDE, Wash-ton (I).

Local Committee for the New York Meeting.

The Local Committee consists of the Members and Fellows of the Association resident in New York City and within a radius of 25 miles of the city.

LOCAL EXECUTIVE COMMITTEE.

- J. J. STEVENSON, *Chairman.*
R. S. WOODWARD, *President of the Association.*
WILLIAM HALLOCK, *Secretary of the Council.*
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C. F. COX, *Transportation.*
H. F. OSBORN.
F. W. PUTNAM.
WILLIAM MCMURTRIE, *Treasurer.*
J. MCKEEN CATTELL, *Secretary.*

Special Committees of the Association.¹

1. *Auditors.*

EMORY MCCLINTOCK, Morristown, and G. K. GILBERT, Washington.

2. *Committee on Indexing Chemical Literature.*

H. CARRINGTON BOLTON, *Chairman*, F. W. CLARKE, A. R. LEEDS, H. W. WILEY, J. W. LANGLEY, A. B. PRESCOTT, ALFRED TUCKERMAN.

3. *Committee on the Policy of the Association.*

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5. *Committee on the Association Library.*

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6. *Committee for the Study of the White Race in America.*

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[VACANT.]

10. *Committee on the Quantitative Study of Biological Variation.*

FRANZ BOAS, *Chairman*, J. MCK. CATTELL, C. S. MINOT, C. H. EIGENMANN, C. B. DAVENPORT.

¹ All Committees are expected to present their reports to the COUNCIL not later than the third day of the meeting. Committees sending their reports to the Permanent Secretary one month before a meeting can have them printed for use at the meeting.

MEETINGS AND OFFICERS OF THE ASSOCIATION OF AMERICAN GEOLOGISTS AND NATURALISTS.

Meeting.	Date.	Place.	Chairman.	Secretary.	Assistant Secretary.	Treasurer.
1st	April 2, 1840,	Philadelphia,	Edw. Hitchcock,*	L. C. Beck,*	{ B. Silliman, Jr.,* C. B. Trego,* J. D. Whitney,* M. B. Williams,* }	John Locke.*
2d	April 5, 1841,	Philadelphia,	Benj. Silliman,*	L. C. Beck,*		
3d	April 25, 1842,	Boston,	S. G. Morton,*	C. T. Jackson,*		
4th	April 26, 1843,	Albany,	Henry D. Rogers,*	B. Silliman, Jr.,*		
5th	May 8, 1844,	Washington,	John Locke,*	{ B. Silliman, Jr.,* O. P. Hubbard,	Douglas Houghton.*	Douglas Houghton.*
6th	April 30, 1845,	New Haven,	Wm. B. Rogers,*	{ B. Silliman, Jr.,* J. Law. Smith,*		
7th	Sept. 2, 1846,	New York,	C. T. Jackson,*	B. Silliman, Jr.,*		
8th	Sept. 20, 1847,	Boston,	Wm. B. Rogers,†*	Jeffries Wyman,*	E. C. Herrick.*	B. Silliman, Jr.*

* Deceased.

† Professor Rogers, as chairman of this last meeting, called the first meeting of the new Association to order and presided until it was fully organized by the adoption of a constitution. As he was thus the first presiding officer of the new Association, it was directed at the Hartford meeting that his name be placed at the head of the Past Presidents of the American Association for the Advancement of Science.

Meetings. #	Place.	Date.	Members in attend- ance.	Number of members.
1	Philadelphia	Sept. 20, 1848	?	461
2	Cambridge	Aug. 14, 1849	?	540
3	Charleston	Mar. 12, 1850	?	622
4	New Haven	Aug. 19, 1850	?	704
5	Cincinnati	May 5, 1851	87	800
6	Albany	Aug. 19, 1851	194	769
7	Cleveland	July 28, 1853	?	940
8	Washington	April 26, 1854	168	1004
9	Providence	Aug. 15, 1855	166	605
10	2nd Albany	Aug. 20, 1856	381	722
11	Montreal	Aug. 12, 1857	351	946
12	Baltimore	April 28, 1858	190	962
13	Springfield	Aug. 3, 1859	190	862
14	Newport	Aug. 1, 1860	135	644
15	Buffalo	Aug. 15, 1866	79	637
16	Burlington	Aug. 21, 1867	73	415
17	Chicago	Aug. 5, 1868	259	686
18	Salem	Aug. 18, 1869	244	511
19	Troy	Aug. 17, 1870	188	536
20	Indianapolis	Aug. 16, 1871	196	668
21	Dubuque	Aug. 15, 1872	164	610
22	Portland	Aug. 20, 1873	195	670
23	Hartford	Aug. 12, 1874	224	722
24	Detroit	Aug. 11, 1875	165	807
25	2nd Buffalo	Aug. 23, 1876	215	867
26	Nashville	Aug. 29, 1877	173	953
27	St. Louis	Aug. 21, 1878	134	962
28	Saratoga	Aug. 27, 1879	256	1030
29	Boston	Aug. 25, 1880	997	1555
30	2nd Cincinnati	Aug. 17, 1881	500	1699
31	2nd Montreal	Aug. 23, 1882	937	1922
32	Minneapolis	Aug. 15, 1883	328	2033
33	2nd Philadelphia	Sept. 3, 1884	1261*	1981
34	Ann Arbor	Aug. 26, 1885	364	1956
35	3d Buffalo	Aug. 18, 1886	445	1886
36	New York	Aug. 10, 1887	729	1956
37	2nd Cleveland	Aug. 14, 1888	342	1964
38	Toronto	Aug. 26, 1889	424	1952
39	2nd Indianapolis	Aug. 19, 1890	364	1944
40	2nd Washington	Aug. 19, 1891	653†	2054
41	Rochester	Aug. 17, 1892	456	2037
41	Madison	Aug. 17, 1893	290	1939
43	Brooklyn	Aug. 15, 1894	488	1802
44	2nd Springfield	Aug. 28, 1895	368	1913
45	4th Buffalo	Aug. 24, 1896	333	1890
46	2nd Detroit	Aug. 9, 1897	283‡	1782
47	2nd Boston	Aug. 22, 1898	903	1729
48	Columbus	Aug. 21, 1899	353	1721
49	2nd New York	June 25, 1900	—	—

* Including 303 members of the British Association and 9 other foreign guests.

† Including 24 Foreign Honorary members for the meeting.

‡ Including 15 Foreign Honorary members and associates for the meeting.

Officers of the Meetings of the Association.

[The number before the name is that of the meeting; the year of the meeting follows the name; the asterisk after a name indicates that the member is deceased.]

PRESIDENTS.

1. WM. B. ROGERS,* 1848.
2. JOSEPH HENRY,* 1849.
- 3, 4, 5. A. D. BACHE,* March meeting, 1850, in absence of JOSEPH HENRY.* August meeting, 1850. May meeting, 1851.
6. LOUIS AGASSIZ,* August meeting, 1851.
(No meeting in 1852.)
7. BENJAMIN PIERCE,* 1853.
8. JAMES D. DANA,* 1854.
9. JOHN TORREY,* 1855.
10. JAMES HALL,* 1856.
- 11, 12. ALEXIS CASWELL,* 1857, in place of J. W. BAILEY,* deceased. 1858, in absence of JEFFRIES WYMAN.*
13. STEPHEN ALEXANDER,* 1859.
14. ISAAC LEA,* 1860.
(No meetings for 1861-65.)
15. F. A. P. BARNARD,* 1866.
16. J. S. NEWBERRY,* 1867.
17. B. A. GOULD,* 1868.
18. J. W. FOSTER,* 1869.
19. T. STERRY HUNT,* 1870, in the absence of WM. CHAUVENET.*
20. ASA GRAY,* 1871.
21. J. LAWRENCE SMITH,* 1872.
22. JOSEPH LOVERING,* 1873.
23. J. L. LECOMTE,* 1874.
24. J. E. HILGARD,* 1875.
25. WILLIAM B. ROGERS,* 1876.
26. SIMON NEWCOMB, 1877.
27. O. C. MARSH,* 1878.
28. G. F. BARKER, 1879.
29. LEWIS H. MORGAN,* 1880.
30. G. J. BRUSH, 1881.
31. J. W. DAWSON, 1882.
32. C. A. YOUNG, 1883.
33. J. P. LESLEY, 1884.
34. H. A. NEWTON,* 1885.
35. EDWARD S. MORSE, 1886.
36. S. P. LANGLEY, 1887.
37. J. W. POWELL, 1888.
38. T. C. MENDENHALL, 1889.
39. G. LINCOLN GOODALE, 1890.
40. ALBERT B. PRESCOTT, 1891.
41. JOSEPH LECOMTE, 1892.
42. WILLIAM HARKNESS, 1893.
43. DANIEL G. BRINTON,* 1894.
44. E. W. MORLEY, 1895.
45. { EDWARD D. COPE,* 1896.
THEODORE GILL, as senior vice president acted after the death of Prof. COPE.
46. WOLCOTT GIBBS, 1897, absent.
W J MCGEE, Acting President.
47. F. W. PUTNAM, 1898.
48. { EDWARD ORTON,* 1899.
GROVE K. GILBERT, elected by the General Committee December, 1899, to fill the vacancy caused by the death of Prof. ORTON.
49. R. S. WOODWARD, 1900.

VICE PRESIDENTS.

There were no Vice Presidents until the 11th meeting when there was a single Vice President for each meeting. At the 24th meeting, the Association met in Sections A and B, each presided over by a Vice President. At the 31st meeting nine sections were organized, each with a Vice President as its presiding officer. In 1886, Section G (Microscopy) was given up. In 1892, Section F was divided into F, Zoology; G, Botany.

1857-1874.

- | | |
|---|---|
| 11. ALEXIS CASWELL,* 1857, acted
as President. | 17. CHARLES WHITTLESEY,* 1868. |
| 12. JOHN E. HOLBROOK,* 1858, not
present. | 18. OGDEN N. ROOD, 1869. |
| 13. EDWARD HITCHCOCK,* 1859. | 19. T. STERRY HUNT,* 1870, acted
as President. |
| 14. B. A. GOULD,* 1860. | 20. G. F. BARKER, 1871. |
| 15. B. A. GOULD,* 1866, in absence
of R. W. GIBBS. | 21. ALEXANDER WINCHELL,* 1872. |
| 16. WOLCOTT GIBBS, 1867. | 22. A. H. WORTHEN,* 1873, not
present. |
| | 23. C. S. LYMAN,* 1874. |

1875-1881.

*Section A.—Mathematics, Physics,
and Chemistry.*

24. H. A. NEWTON,* 1875.
25. C. A. YOUNG, 1876.
26. R. H. THURSTON, 1877, in the
absence of E. C. PICKERING.
27. R. H. THURSTON, 1878.
28. S. P. LANGLEY, 1879.
29. ASAPH HALL, 1880.
30. WILLIAM HARKNESS, 1881, in
the absence of A. M. MAYER.*

Section B.—Natural History.

24. J. W. DAWSON, 1875.
25. EDWARD S. MORSE, 1876.
26. O. C. MARSH,* 1877.
27. AUG. R. GROTE, 1878.
28. J. W. POWELL, 1879.
29. ALEXANDER AGASSIZ, 1880.
30. EDWARD T. COX, 1881, in the
absence of GEORGE ENGEL-
MANN.*

CHAIRMEN OF SUBSECTIONS, 1875-1881.

Subsection of Chemistry.

24. S. W. JOHNSON, 1875.
25. G. F. BARKER, 1876.
26. N. T. LUPTON,* 1877.
27. F. W. CLARKE, 1878.
28. F. W. CLARKE, 1879, in the ab-
sence of IRA REMSEN.
29. J. M. ORDWAY, 1880.
30. G. C. CALDWELL, 1881, in the
absence of W. R. NICHOLS.*

Subsection of Microscopy.

25. R. H. WARD, 1876.
26. R. H. WARD, 1877.
27. R. H. WARD, 1878, in the ab-
sence of G. S. BLACKIE.*

28. E. W. MORLEY, 1879.

29. S. A. LATTIMORE, 1880.

30. A. B. HERVEY, 1881.

Subsection of Anthropology.

24. LEWIS H. MORGAN,* 1875.
25. LEWIS H. MORGAN,* 1876.
26. DANIEL WILSON,* 1877, not
present.

27. United with Section B.

28. DANIEL WILSON,* 1879.

29. J. W. POWELL, 1880.

30. GARRICK MALLERY,* 1881.

Subsection of Entomology.

30. J. G. MORRIS,* 1881.

VICE PRESIDENTS OF SECTIONS, 1882-

Section A.—Mathematics and Astronomy.

31. W. A. ROGERS,* 1882, in the absence of WM. HARKNESS.
32. W. A. ROGERS, 1883.
33. H. T. EDDY, 1884.
34. WM. HARKNESS, 1885, in the absence of J. M. VAN VLECK.
35. J. W. GIBBS, 1886.
36. J. R. EASTMAN, 1887, in place of W. FERREL,* resigned.
37. ORMOND STONE, 1888.
38. R. S. WOODWARD, 1889.
39. S. C. CHANDLER, 1890.
40. E. W. HYDE, 1891.
41. J. R. EASTMAN, 1892.
42. C. L. DOOLITTLE, 1893.
43. { G. C. COMSTOCK, 1894.
EDGAR FRISBY, 1894.
44. EDGAR FRISBY, 1895, in place of E. H. HOLDEN,, resigned.
45. ALEX. MACFARLANE, 1896, in place of WM. E. STORY, resigned.
46. W. W. BEMAN, 1897.
47. E. E. BARNARD, 1898.
48. ALEX. MACFARLANE, 1899.
49. ASAPH HALL, JR., 1900.

Section B.—Physics.

31. T. C. MENDENHALL, 1882.
32. H. A. ROWLAND, 1883.
33. J. TROWBRIDGE, 1884.
34. S. P. LANGLEY, 1885, in place of C. F. BRACKETT, resigned.
35. C. F. BRACKETT, 1886.
36. W. A. ANTHONY, 1887.
37. A. A. MICHELSON, 1888.
38. H. S. CARHART, 1889.
39. CLEVELAND ABBE, 1890.
40. F. E. NIPHER, 1891.
41. B. F. THOMAS, 1892.
42. E. L. NICHOLS, 1893.
43. WM. A. ROGERS, 1894.
44. W. LECONTE STEVENS, 1895.

45. CARL LEO MRES, 1896.
46. CARL BARUS, 1897.
47. F. P. WHITMAN, 1898.
48. ELIHU THOMSON, 1899.
49. ERNEST MERRITT, 1900.

Section C.—Chemistry.

31. H. C. BOLTON, 1882.
32. E. W. MORLEY, 1883.
33. J. W. LANGLEY, 1884.
34. N. T. LUPTON,* 1885, in absence of W. R. NICHOLS.*
35. H. W. WILEY, 1886.
36. A. B. PRESCOTT, 1887.*
37. C. E. MUNROE, 1888.
38. W. L. DUDLEY, 1889.
39. R. B. WARDER, 1890.
40. R. C. KEDZIE, 1891.
41. ALFRED SPRINGER, 1892.
42. EDWARD HART, 1893.
43. T. H. NORTON, 1894.
44. WM. MCMURTRIE, 1895.
45. W. A. NOYES, 1896.
46. W. P. MASON, 1897.
47. EDGAR F. SMITH, 1898.
48. F. P. VENABLE, 1899.
49. JAS. LEWIS HOWE, 1900.

Section D.—Mechanical Science and Engineering.

31. W. P. TROWBRIDGE,* 1882.
32. DE VOLSON WOOD, 1883, absent, but place was not filled.
33. R. H. THURSTON, 1884.
34. J. BURKITT WEBB, 1885.
35. O. CHANUTE, 1886.
36. E. B. COXE, 1887.
37. C. J. H. WOODBURY, 1888.
38. JAMES E. DENTON, 1889.
39. JAMES E. DENTON, 1890, in place of A. BEARDSLEY, absent.
40. THOMAS GRAY, 1891.
41. J. B. JOHNSON, 1892.
42. S. W. ROBINSON, 1893.

VICE PRESIDENTS OF SECTIONS, CONTINUED.

*Section D.—Mechanical Science
and Engineering, continued.*

43. MANSFIELD MERRIMAN, 1894.
44. WILLIAM KENT, 1895.
45. FRANK O. MARVIN, 1896.
46. JOHN GALBRAITH, 1897.
47. JOHN GALBRAITH, 1898, in absence of M. E. COOLEY.
48. STORM BULL, 1899.
49. JOHN A. BRASHEAR, 1900.

*Section E.—Geology and
Geography.*

31. E. T. COX, 1882.
32. C. H. HITCHCOCK, 1883.
33. N. H. WINCHELL, 1884.
34. EDWARD ORTON,* 1885.
35. T. C. CHAMBERLIN, 1886.
36. G. K. GILBERT, 1887.
37. GEORGE H. COOK,* 1888.
38. CHARLES A. WHITE, 1889.
39. JOHN C. BRANNER, 1890.
40. J. J. STEVENSON, 1891.
41. H. S. WILLIAMS, 1892.
42. CHARLES D. WALCOTT, 1893.
43. SAMUEL CALVIN, 1894.
44. JED. HOTCHKISS, 1895.
45. B. K. EMERSON, 1896.
46. { I. C. WHITE, 1897.
E. W. CLAYPOLE, 1897.
47. H. L. FAIRCHILD, 1898.
48. J. F. WHITEAVES, 1899.
49. J. F. KEMP, 1900.

Section F.—Biology, 1882-92.

31. W. H. DALL, 1882.
32. W. J. BEAL, 1883.
33. E. D. COPE,* 1884.
34. T. J. BURRILL, 1885, in the absence of B. G. WILDER.
35. H. P. BOWDITCH, 1886.
36. W. G. FARLOW, 1887.
37. C. V. RILEY,* 1888.
38. GEORGE L. GOODALE, 1889.
39. C. S. MINOT, 1890.

40. J. M. COULTER, 1891.

41. S. H. GAGE, 1892.

Section F.—Zoology.

42. HENRY F. OSBORN, 1893.
43. J. A. LINTNER,* 1894, in place of S. H. SCUDDER, resigned.
44. L. O. HOWARD, 1895, in place of D. S. JORDAN, resigned.
45. THEO. GILL, 1896.
46. L. O. HOWARD, 1897, in place of G. BROWN GOODE,* deceased.

47. A. S. PACKARD, 1898.

48. S. H. GAGE, 1899.

49. C. B. DAVENPORT, 1900.

Section G.—Microscopy, 1882-85.

31. A. H. TUTTLE, 1882.
32. J. D. COX, 1883.
33. T. G. WORMLEY,* 1884.
34. S. H. GAGE, 1885.

(Section united with F in 1886.)

Section G.—Botany.

42. CHARLES E. BESSEY, 1893.
43. { L. M. UNDERWOOD, 1894.
C. E. BESSEY, 1894.
44. J. C. ARTHUR, 1895.
45. N. L. BRITTON, 1896.
46. G. F. ATKINSON, 1897.
47. W. G. FARLOW, 1898.
48. C. R. BARNES, 1899.
49. W. TRELEASE, 1900.

Section H.—Anthropology.

31. ALEXANDER WINCHELL,* 1882.
32. OTIS T. MASON, 1883.
33. EDWARD S. MORSE, 1884.
34. J. OWEN DORSEY,* 1885, in absence of W. H. DALL.
35. HORATIO HALE,* 1886.
36. D. G. BRINTON,* 1887.
37. CHARLES C. ABBOTT, 1888.
38. GARRICK MALLERY,* 1889.
39. FRANK BAKER, 1890.
40. JOSEPH JASTROW, 1891.

VICE PRESIDENTS OF SECTIONS, CONTINUED.

*Section H.—Anthropology,
continued*

41. W. H. HOLMES, 1892.
42. J. OWEN DORSEY,* 1893.
43. FRANZ BOAS, 1894.
44. F. H. CUSHING, 1895.
45. ALICE C. FLETCHER, 1896.
46. W J MCGEE, 1897.
47. J. MCK. CATTELL, 1898.
48. THOMAS WILSON, 1899.
49. A. W. BUTLER, 1900.

*Section I.—Social and Economic
Science.*

31. E. B. ELLIOTT,* 1882.
32. FRANKLIN B. HOUGH,* 1883.
33. JOHN EATON,* 1884.
34. EDWARD ATKINSON, 1885.

35. JOSEPH CUMMINGS,* 1886.
36. H. E. ALVORD, 1887.
37. CHARLES W. SMILEY, 1888.
38. CHARLES S. HILL, 1889.
39. J. RICHARDS DODGE, 1890.
40. EDMUND J. JAMES, 1891.
41. L. F. WARD, 1892, in place of
S. D. HORTON,* resigned.
42. WILLIAM H. BREWER, 1893.
43. HENRY FARQUHAR, 1894.
44. B. E. FERNOW, 1895.
45. W. L. LAZENBY, 1896.
46. R. T. COLBURN, 1897.
47. ARCHIBALD BLUE, 1898.
48. MARCUS BENJAMIN, 1899.
49. C. M. WOODWARD, 1900.

SECRETARIES.

General Secretaries, 1848—

1. WALTER R. JOHNSON,* 1848.
2. E. N. HORSFORD,* 1849, in absence of JEFFRIES WYMAN.*
3. L. R. GIBBS, 1850, in absence of E. C. HERRICK.*
4. E. C. HERRICK,* 1850.
5. WILLIAM B. ROGERS,* 1851, in absence of E. C. HERRICK.*
6. WILLIAM B. ROGERS,* 1851.
7. S. ST. JOHN,* 1853, in absence of J. D. DANA.*
8. J. LAWRENCE SMITH,* 1854.
9. WOLCOTT GIBBS, 1855.
10. B. A. GOULD,* 1856.
11. JOHN LECONTE,* 1857.
12. W. M. GILLESPIE,* 1858, in absence of WM. CHAUVENET.*
13. WILLIAM CHAUVENET,* 1859.
14. JOSEPH LECONTE, 1860.
15. ELIAS LOOMIS,* 1866, in the absence of W. P. TROWBRIDGE.*
16. C. S. LYMAN,* 1867.

17. SIMON NEWCOMB, 1868, in absence of A. P. ROCKWELL.
18. O. C. MARSH,* 1869.
19. F. W. PUTNAM, 1870, in absence of C. F. HARTT.*
20. F. W. PUTNAM, 1871.
21. EDWARD S. MORSE, 1872.
22. C. A. WHITE, 1873.
23. A. C. HAMLIN, 1874.
24. S. H. SCUDDER, 1875.
25. T. C. MENDENHALL, 1876.
26. AUG. R. GROTE, 1877.
27. H. C. BOLTON, 1878.
28. H. C. BOLTON, 1879, in the absence of GEORGE LITTLE.
29. J. K. REES, 1880.
30. C. V. RILEY,* 1881.
31. WILLIAM SAUNDERS, 1882.
32. J. R. EASTMAN, 1883.
33. ALFRED SPRINGER, 1884.
34. C. S. MINOT, 1885.
35. S. G. WILLIAMS, 1886.
36. WILLIAM H. PETTEE, 1887.
37. JULIUS POHLMAN, 1888.
38. C. LEO MEES, 1889.

SECRETARIES, CONTINUED.

39. H. C. BOLTON, 1890.
40. H. W. WILEY, 1891.
41. A. W. BUTLER, 1892.
42. T. H. NORTON, 1893.
43. H. L. FAIRCHILD, 1894.
44. JAS. LEWIS HOWE, 1895.
45. CHARLES R. BARNES, 1896.
46. ASAPH HALL, JR., 1897.
47. J. MCMAHON, 1898, in place of
D. S. KELLICOTT,* deceased.
48. F. BEDELL, 1899.
49. CHARLES BASKERVILLE, 1900.

Permanent Secretaries, 1851-

- 5-7. SPENCER F. BAIRD,* 1851-4.
- 8-17. JOSEPH LOVERING,* 1854-68.
18. F. W. PUTMAN, 1869, in the
absence of J. LOVERING.*
- 19-21. JOSEPH LOVERING,* 1870-73
- 22-46. F. W. PUTNAM, 1873-98.
- 47-53. L. O. HOWARD, 1898-1905.

*Assistant General Secretaries,
1882-1887.*

31. J. R. EASTMAN, 1882.
32. ALFRED SPRINGER, 1883.
33. C. S. MINOT, 1884, in absence
of E. S. HOLDEN.
34. S. G. WILLIAMS, 1885, in ab-
sence of C. C. ABBOTT.
35. W. H. PETTEE, 1886.
36. J. C. ARTHUR, 1887.

Secretaries of the Council, 1888-

37. C. LEO MEES, 1888.
38. H. C. BOLTON, 1889.

39. H. W. WILEY, 1890.
40. A. W. BUTLER, 1891.
41. T. H. NORTON, 1892.
42. H. LEROY FAIRCHILD, 1893.
43. JAS. LEWIS HOWE, 1894.
44. CHARLES R. BARNES, 1895.
45. ASAPH HALL, JR., 1896.
46. D. S. KELLICOTT,* 1897.
47. FREDERICK BEDELL, 1898.
48. CHARLES BASKERVILLE, 1899.
49. WILLIAM HALLOCK, 1900.

*Secretaries of Section A.—Mathe-
matics, Physics, and Chemistry,
1875-81.*

24. { S. P. LANGLEY, 1875.
T. C. MENDENHALL, 1875.
25. A. W. WRIGHT, 1876.
26. H. C. BOLTON, 1877.
27. F. E. NIPHER, 1878.
28. J. K. REES, 1879.
29. H. B. MASON, 1880.
30. E. T. TAPPAN, 1881, in the ab-
sence of JOHN TROWBRIDGE.

*Secretaries of Section B.—Natural
History, 1874-81.*

24. EDWARD S. MORSE, 1875.
25. ALBERT H. TUTTLE, 1876.
26. WILLIAM H. DALL, 1877.
27. GEORGE LITTLE, 1878.
28. WILLIAM H. DALL, 1879, in the
absence of A. C. WETHERBY.
29. CHARLES V. RILEY,* 1880.
30. WILLIAM SAUNDERS, 1881.

SECRETARIES OF SUBSECTIONS, 1875-81.

Subsection of Chemistry.

24. F. W. CLARKE, 1875.
25. H. C. BOLTON, 1876.
26. P. SCHWEITZER, 1877.
27. A. P. S. STUART, 1878.
28. W. R. NICHOLS,* 1879.
29. C. E. MUNROE, 1880.
30. ALFRED SPRINGER, 1881, in
absence of R. B. WARDER.

Subsection of Entomology.

30. B. P. MANN, 1881.

Subsection of Anthropology.

24. F. W. PUTMAN, 1875.
25. OTIS T. MASON, 1876.
- 26, 27. United with Section B.
- 28, 29, 30. J. G. HENDERSON,
1879-81.

SECRETARIES OF SUBSECTIONS, CONTINUED.

Subsection of Microscopy.

25. E. W. MORLEY, 1876.
 26. T. O. SOMMERS, JR., 1877.
 27. G. J. ENGELMANN, 1878.

- 28, 29. A. B. HERVEY, 1879-80.
 30. W. H. SEAMAN, 1881, in the
 absence of S. P. SHARPLES.

SECRETARIES OF THE SECTIONS, 1882-

*Section A.—Mathematics and
Astronomy.*

31. H. T. EDDY, 1882.
 32. G. W. HOUGH, 1883, in the ab-
 sence of W. W. JOHNSON.
 33. G. W. HOUGH, 1884.
 34. E. W. HYDE, 1885.
 35. S. C. CHANDLER, 1886.
 36. H. M. PAUL, 1887.
 37. C. C. DOOLITTLE, 1888.
 38. G. C. COMSTOCK, 1889.
 39. W. W. BEMAN, 1890.
 40. F. H. BIGELOW, 1891.
 41. WINSLOW UPTON, 1892.
 42. C. A. WALDO, 1893, in the ab-
 sence of A. W. PHILLIPS.
 43. J. C. KERSHNER, 1894, in place
 of W. W. BEMAN, resigned.
 44. ASAPH HALL, JR., 1895, in place
 of E. H. MOORE, resigned.
 45. EDWIN B. FROST, 1896.
 46. JAMES MCMAHON, 1897.
 47. WINSLOW UPTON, 1898, in place
 of ALEXANDER ZIWET, re-
 signed.
 48. JOHN F. HAYFORD, 1899.
 49. W. M. STRONG, 1900.

Section B.—Physics.

31. C. S. HASTINGS, 1882.
 32. F. E. NIPHER, 1883, in the ab-
 sence of C. K. WEAD.
 33. N. D. C. HODGES, 1884.
 34. B. F. THOMAS, 1885, in place of
 A. A. MICHELSON, resigned.
 35. H. S. CARHART, 1886.
 36. C. LEO MEES, 1887.
 37. ALEX. MACFARLANE, 1888.
 38. E. L. NICHOLS, 1889.

39. E. M. AVERY, 1890.
 40. ALEX. MACFARLANE, 1891.
 41. BROWN AYRES, 1892.
 42. W. LeCONTE STEVENS, 1893.
 43. B. W. SNOW, 1894.
 44. E. MERRITT, 1895.
 45. FRANK P. WHITMAN, 1896.
 46. FREDERICK BEDELL, 1897.
 47. W. S. FRANKLIN, 1898, in place
 of E. B. ROSA, resigned.
 48. WILLIAM HALLOCK, 1899.
 49. R. A. FESSENDEN, 1900.

Section C.—Chemistry.

31. ALFRED SPRINGER, 1882.
 32. { J. W. LANGLEY, 1883.
 { W. MCMURTRIE, 1883.
 33. H. CARMICHAEL, 1884, in the
 absence of R. B. WARDER.
 34. F. P. DUNNINGTON, 1885.
 35. W. MCMURTRIE, 1886.
 36. C. F. MABERY, 1887.
 37. W. L. DUDLEY, 1888.
 38. EDWARD HART, 1889.
 39. W. A. NOYES, 1890.
 40. T. H. NORTON, 1891.
 41. JAS. LEWIS HOWE, 1892.
 42. H. N. STOKES, 1893, in the ab-
 sence of J. U. NEF.
 43. MORRIS LOEB, 1894, in place
 of S. M. BABCOCK, resigned.
 44. { W. P. MASON, 1895.
 { W. O. ATWATER, 1895.
 45. FRANK P. VENABLE, 1896.
 46. P. C. FREER, 1897.
 47. C. BASKERVILLE, 1898.
 48. H. A. WEBER, 1899.
 49. A. A. NOYES, 1900.

SECRETARIES OF THE SECTIONS, CONTINUED.

Section D.—Mechanical Science and Engineering.

31. J. BURKITT WEBB, 1882, in the absence of C. B. DUDLEY.
32. J. BURKITT WEBB, 1883, *pro tempore*.
33. J. BURKITT WEBB, 1884.
34. C. J. H. WOODBURY, 1885.
35. WILLIAM KENT, 1886.
36. G. M. BOND, 1887.
37. ARTHUR BEARDSLEY, 1888.
38. W. B. WARNER, 1889.
39. THOMAS GRAY, 1890.
40. WILLIAM KENT, 1891.
41. O. H. LANDRETH, 1892.
42. D. S. JACOBUS, 1893.
43. JOHN H. KINEALY, 1894.
44. H. S. JACOBY, 1895.
45. JOHN GALBRAITH, 1896.
46. JOHN J. FLATHER, 1897.
47. W. S. ALDRICH, 1898.
48. J. M. PORTER, 1899.
49. W. T. MAGRUDER, 1900.

Section E.—Geology and Geography.

31. H. S. WILLIAMS, 1882, in the absence of C. E. DUTTON.
32. A. A. JULIEN, 1883.
33. E. A. SMITH, 1884.
34. G. K. GILBERT, 1885, in the absence of H. C. LEWIS.*
35. E. W. CLAYPOLE, 1886.
36. W. M. DAVIS, 1887, in the absence of T. B. COMSTOCK.
37. JOHN C. BRANNER, 1888.
38. JOHN C. BRANNER, 1889.
39. SAMUEL CALVIN, 1890.
40. W J MCGEE, 1891.
41. R. D. SALISBURY, 1892.
42. W. H. HOBBS,* 1893, in place of R. T. HILL, resigned.
43. JED. HOTCHKISS,* 1894, in place of W. M. DAVIS, resigned.

44. J. PERRIN SMITH, 1895.
45. W. N. RICE, 1896, in place of A. C. GILL, resigned.
46. C. H. SMITH, JR., 1897.
47. WARREN UPHAM, 1898.
48. ARTHUR HOLLICK, 1899.
49. J. A. HOLMES, 1900.

Section F.—Biology, 1882-92.

31. WILLIAM OSLER, 1882, in the absence of C. S. MINOT.
32. S. A. FORBES, 1883.
33. C. E. BESSEY, 1884.
34. J. A. LINTNER,* 1885, in place of C. H. FERNALD, resigned.
35. J. C. ARTHUR, 1886.
36. J. H. COMSTOCK, 1887.
37. B. E. FERNOW, 1888.
38. A. W. BUTLER, 1889.
39. J. M. COULTER, 1890.
40. A. J. COOK, 1891.
41. D. B. HALSTEAD, 1892.

Section F.—Zoology.

42. L. O. HOWARD, 1893.
43. JOHN B. SMITH, 1894, in place of WM. LIBBY, JR., resigned.
44. C. W. HARGITT, 1895, in place of S. A. FORBES resigned.
45. D. S. KELLICOTT,* 1896.
46. C. C. NUTTING, 1897.
47. R. T. JACKSON, 1898, in place of C. W. STILES, resigned.
48. C. L. MARLATT, 1899, in place of F. W. TRUE, resigned.
49. C. H. EIGENMANN, 1900.

Section G.—Microscopy, 1882-85.

31. ROBERT BROWN, JR., 1882.
32. CARL SEILER, 1883.
33. ROMYN HITCHCOCK, 1884.
34. W. H. WALMSLEY, 1885.

Section G.—Botany.

42. B. T. GALLOWAY, 1893, in the absence of F. V. COVILLE.
43. CHARLES R. BARNES, 1894.

SECRETARIES OF THE SECTIONS, CONTINUED.

44. { B. T. GALLOWAY, 1895.
M. B. WAITE, 1895.
45. GEORGE F. ATKINSON, 1896.
46. F. C. NEWCOMBE, 1897.
47. ERWIN F. SMITH, 1898.
48. W. A. KELLERMAN, 1899.
49. D. T. MACDOUGAL, 1900.

Section H.—Anthropology.

31. OTIS T. MASON, 1882.
32. G. H. PERKINS, 1883.
33. G. H. PERKINS, 1884, in the absence of W. H. HOLMES.
34. ERMINNIE A. SMITH,* 1885.
35. A. W. BUTLER, 1886.
36. CHARLES C. ABBOTT, 1887, in absence of F. W. LANGDON.
37. FRANK BAKER, 1888.
38. W. M. BEAUCHAMP, 1889.
39. JOSEPH JASTROW, 1890.
40. W. H. HOLMES, 1891.
41. W. M. BEAUCHAMP, 1892, in place of S. CULIN, resigned.
42. WARREN K. MOOREHEAD, 1893.
43. A. F. CHAMBERLIN, 1894.
44. { STEWART CULIN and W. W. TOOKER, 1895, in place of ANITA N. MCGEE, resigned.
45. G. H. PERKINS, 1896, in place of J. G. BOURKE,* deceased.
46. ANITA N. MCGEE, 1897, in place of HARLAN I. SMITH, resigned.

47. MARSHALL H. SAVILLE, 1898.
48. E. W. SCRIPTURE, 1899, in place of GEORGE A. DORSEY, resigned.
49. FRANK RUSSELL, 1900.

Section I.—Social and Economic Science.

31. { FRANKLIN B. HOUGH,* 1882.
J. RICHARDS DODGE, 1882.
32. JOSEPH CUMMINGS,* 1883.
33. CHARLES W. SMILEY, 1884.
34. CHARLES W. SMILEY, 1885, in absence of J. W. CHICKERING.
35. H. E. ALVORD, 1886.
36. W. R. LAZENBY, 1887.
37. CHARLES S. HILL, 1888.
38. J. RICHARDS DODGE, 1889.
39. B. E. FERNOW, 1890.
40. B. E. FERNOW, 1891.
41. HENRY FARQUHAR, 1892, in place of L. F. WARD, made Vice President.
42. NELLIE S. KEDZIE, 1893.
43. MANLEY MILES, 1894.
44. W. R. LAZENBY, 1895, in place of E. A. ROSS, resigned.
45. R. T. COLBURN, 1896.
46. ARCHIBALD BLUE, 1897.
47. MARCUS BENJAMIN, 1898.
48. CALVIN M. WOODWARD, 1899.
49. H. T. NEWCOMB, 1900.

TREASURERS.

1. JEFFRIES WYMAN,* 1848.
2. A. L. ELWYN, 1849.
3. ST. J. RAVENEL,* 1850, in the absence of A. L. ELWYN.*
4. A. L. ELWYN,* 1850.
5. SPENCER F. BAIRD,* 1851, in absence of A. L. ELWYN.*
6-7. A. L. ELWYN,* 1851-53.
8. J. L. LECONTE,* 1854, in absence of A. L. ELWYN.*
9-19. A. L. ELWYN,* 1855-1870.
20-30. WILLIAM S. VAUX,* 1871-1881.
32-42. WILLIAM LILLY,* 1882-93.
43-49. R. S. WOODWARD, 1894-1900.

Commonwealth of Massachusetts.

In the Year one Thousand Eight Hundred and Seventy-Four.

AN ACT

TO INCORPORATE THE "AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE."

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Joseph Henry of Washington, Benjamin Pierce of Cambridge, James D. Dana of New Haven, James Hall of Albany, Alexis Caswell of Providence, Stephen Alexander of Princeton, Isaac Lea of Philadelphia, F. A. P. Barnard of New York, John S. Newberry of Cleveland, B. A. Gould of Cambridge, T. Sterry Hunt of Boston, Asa Gray of Cambridge, J. Lawrence Smith of Louisville, Joseph Lovering of Cambridge, and John LeConte of Philadelphia, their associates, the officers and members of the Association, known as the "American Association for the Advancement of Science," and their successors, are hereby made a corporation by the name of the "American Association for the Advancement of Science," for the purpose of receiving, purchasing, holding, and conveying real and personal property, which it now is, or hereafter may be, possessed of, with all the powers and privileges, and subject to the restrictions, duties and liabilities set forth in the general laws which now or hereafter may be in force and applicable to such corporations.

SECTION 2. Said corporation may have and hold by purchase, grant, gift, or otherwise, real estate not exceeding one hundred thousand dollars in value, and personal estate of the value of two hundred and fifty thousand dollars.

SECTION 3. Any two of the corporators above named are hereby authorized to call the first meeting of the said corporation in the month of August next ensuing, by notice thereof "by mail," to each member of the said Association.

SECTION 4. This act shall take effect upon its passage.

HOUSE OF REPRESENTATIVES, March 10, 1874.

Passed to be enacted,

JOHN E. SANFORD, *Speaker*.

IN SENATE, March 17, 1874.

Passed to be enacted,

GEO. B. LORING, *President*.

March 19, 1874.

Approved,

W. B. WASHBURN.

SECRETARY'S DEPARTMENT,

Boston, April 3, 1874.

A true copy, Attest:

DAVID PULSIFER,

Deputy Secretary of the Commonwealth.

CONSTITUTION

OF THE

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Incorporated by Act of the General Court of the Commonwealth of Massachusetts.

OBJECTS.

ARTICLE 1. The objects of the Association are, by periodical and migratory meetings, to promote intercourse between those who are cultivating science in different parts of America, to give a stronger and more general impulse and more systematic direction to scientific research, and to procure for the labors of scientific men, increased facilities and a wider usefulness.

MEMBERS, FELLOWS, PATRONS, AND HONORARY FELLOWS.

ART. 2. The Association shall consist of Members, Fellows, Patrons, Corresponding Members and Honorary Fellows.

ART. 3. Any person may become a Member of the Association upon recommendation in writing by two members or fellows, and election by the Council. Any incorporated scientific society or institution, or any public or incorporated library, may be enrolled as a member of the Association by vote of the Council by payment of the initiation fee; such society, institution or library may be represented by either the President, Curator, Director, or Librarian presenting proper credentials at any meeting of the Association for which the assessment has been paid.

Associates for any single meeting shall be admitted on the payment of three dollars; such Associates to have all the privileges of the meeting, except reading papers and voting.

Members of scientific societies whose meetings are contemporaneous with or immediately subsequent to that of the Association and which are recognized by vote of the Council as 'Affiliated Societies,' may become Associate Members for that meeting on the payment of three dollars. They shall be entitled to all the privileges of membership except voting or appointment to office, but their names shall not appear in the list of members printed in the annual report.

Any Member or Fellow of any national scientific or educational institution, or of any society or academy of science, or any country not in America, who may be present at any meeting of the Association shall, on presenting the proper credentials, be enrolled without fee as a Foreign Associate, and shall be entitled to all the privileges of the meeting except voting on matters of business.

ART. 4. Fellows shall be elected by the Council from such of the members as are professionally engaged in science, or have, by their labors, aided in advancing science. The election of fellows shall be by ballot and a majority vote of the members of the Council at a designated meeting of the Council.

ART. 5. Any person paying to the Association the sum of one thousand dollars shall be classed as a Patron, and shall be entitled to all the privileges of a member and to all its publications.

ART. 6. Honorary Fellows of the Association, not exceeding three for each section, may be elected; the nominations to be made by the Council and approved by ballot in the respective sections before election by ballot in General Session. Honorary Fellows shall be entitled to all the privileges of Fellows and shall be exempt from all fees and assessments, and entitled to all publications of the Association issued after the date of their election. Corresponding Members shall consist of such scientists not residing in America as may be elected by the Council, and their number shall be limited to fifty. Corresponding Members shall be entitled to all the privileges of members and to the annual volumes of Proceedings published subsequent to their election.

ART. 7. The name of any member or fellow two years in arrears for annual dues shall be erased from the list of the Association, provided, that two notices of indebtedness, at an interval of at least three months, shall have been given; and no such person shall be restored until he has paid his arrearages or has been reelected. The Council shall have power to exclude from the Association any member or fellow, on satisfactory evidence that said member or fellow is an improper person to be connected with the Association, or has in the estimation of the Council made improper use of his membership or fellowship.

ART. 8. No member or fellow shall take part in the organization of, or hold office in, more than one section at any one meeting.

OFFICERS.

ART. 9. The officers of the Association shall be elected by ballot by

the General Committee from the fellows, and shall consist of a President, a Vice President from each section, a Permanent Secretary, a General Secretary, a Secretary of the Council, a Treasurer, and a Secretary of each Section; these, with the exception of the Permanent Secretary, shall be elected at each meeting for the following one and, with the exception of the Treasurer and the Permanent Secretary, shall not be reeligible for the next two meetings. The term of office of Permanent Secretary shall be five years.

ART. 10. The President, or, in his absence, the senior Vice President present, shall preside at all General Sessions of the Association and at all meetings of the Council. It shall also be the duty of the President to give an address at a General Session of the Association at the meeting following that over which he presided.

ART. 11. The Vice Presidents shall be chairmen of their respective Sections, and of their Sectional Committees, and it shall be part of their duty to give an address, each before his own section, at such time as the council shall determine at the meeting subsequent to that at which he presides. The Vice Presidents may appoint temporary Chairmen to preside over the sessions of their sections, but shall not delegate their other duties. The Vice Presidents shall have seniority in order of their continuous membership in the Association.

ART. 12. The General Secretary shall be the Secretary of all General Sessions of the Association, and shall keep a record of the business of these sessions. He shall receive the records from the Secretaries of the Sections, which, after examination, he shall transmit with his own records to the Permanent Secretary within two weeks after the adjournment of the meeting.

ART. 13. The Secretary of the Council shall keep the records of the Council. He shall give to the Secretary of each Section the titles of papers assigned to it by the Council. He shall receive proposals for membership and bring them before the Council.

ART. 14. The Permanent Secretary shall be the executive officer of the Association under the direction of the Council. He shall attend to all business not specially referred to committees nor otherwise constitutionally provided for. He shall keep an account of all business that he has transacted for the Association, and make annually a general report for publication in the annual volume of Proceedings. He shall attend to the printing and distribution of the annual volume of Proceedings,

and all other printing ordered by the Association. He shall issue a circular of information to members and fellows at least three months before each meeting, and shall, in connection with the Local Committee, make all necessary arrangements for the meetings of the Association. He shall provide the Secretaries of the Association with such books and stationery as may be required for their records and business, and shall provide members and fellows with such blank forms as may be required for facilitating the business of the Association. He shall collect all assessments and admission fees, and notify members and fellows of their election, and of any arrearages. He shall receive, and bring before the Council, the titles and abstracts of papers proposed to be read before the Association. He shall keep an account of all receipts and expenditures of the Association, and report the same annually at the first meeting of the Council, and shall pay over to the Treasurer such unexpended funds as the Council may direct. He shall receive and hold in trust for the Association all books, pamphlets, and manuscripts belonging to the Association, and allow the use of the same under the provisions of the Constitution and the orders of the Council. He shall receive all communications addressed to the Association during the intervals between meetings, and properly attend to the same. He shall at each meeting report the names of fellows and members who have died since the preceding meeting. He shall be allowed a salary which shall be determined by the Council, and may employ one or more clerks at such compensation as may be agreed upon by the Council.

ART. 15. The Treasurer shall invest the funds received by him in such securities as may be directed by the Council. He shall annually present to the Council an account of the funds in his charge. No expenditure of the principal in the hands of the Treasurer shall be made without a unanimous vote of the Council, and no expenditure of the income received by the Treasurer shall be made without a two-thirds vote of the Council. The Treasurer shall give bonds for the faithful performance of his duty in such manner and sum as the Council shall from time to time direct.

ART. 16. The Secretaries of the Sections shall keep the records of their respective sections, and, at the close of the meeting, give the same, including the records of subsections, to the General Secretary. They shall also be the Secretaries of the Sectional Committees. The Secretaries shall have seniority in order of their continuous membership in the Association.

ART. 17. In case of a vacancy in the office of President, the Senior Vice President shall preside, as provided in Article 10, until the General Committee can be assembled and the vacancy filled by election. Vacancies in the offices of Vice President, Permanent Secretary, Secretary of the Council, Secretaries of the Sections, and Treasurer, shall be filled by the Council by ballot.

ART. 18. The Council shall consist of the past Presidents, and the Vice Presidents of the last two meetings, together with the President, the Vice Presidents, the Permanent Secretary, the General Secretary, the Secretary of the Council, the Secretaries of the Sections, and the Treasurer of the current meeting, with the addition of one fellow elected from each Section by ballot on the first day of its meeting. The members present at any regularly called meeting of the Council, provided there are at least five, shall form a quorum for the transaction of business. The Council shall meet on the day preceding each annual meeting of the Association, and arrange the program for the first day of the sessions. The time and place of this first meeting shall be designated by the Permanent Secretary. Unless otherwise agreed upon, regular meetings of the Council shall be held in the Council room at 9 o'clock, A.M., on each day of the meeting of the Association. Special meetings of the Council may be called at any time by the President. The Council shall be the board of supervision of the Association, and no business shall be transacted by the Association that has not first been referred to, or originated with, the Council. The Council shall decide which papers, discussions, and other proceedings shall be published, and have the general direction of the publications of the Association; manage the financial affairs of the Association; arrange the business and programs for General Sessions; suggest subjects for discussion, investigation or reports; elect members and fellows; and receive and act upon all invitations extended to the Association and report the same at a General Session of the Association. The Council shall receive all reports of Special Committees and decide upon them, and only such shall be read in General Session as the Council shall direct. The Council shall appoint at each meeting the following subcommittees who shall act, subject to appeal to the whole Council, until their successors are appointed at the following meeting: 1, on Papers and Reports: 2, on Members; 3, on Fellows.

ART. 19. The General Committee shall consist of the Council and one Member or Fellow elected by each of the Sections, who shall serve until

their successors are elected. It shall be the duty of the Committee to meet at the call of the President and elect the general officers for the following meeting of the Association. It shall also be the duty of this Committee to fix the time and place for the next meeting. The Vice President and Secretary of each Section shall be recommended to the General Committee by the Sectional Committee.

MEETINGS.

ART. 20. The Association shall hold a public meeting annually, for one week or longer, at such time and place as may be determined by vote of the General Committee, and the preliminary arrangements for each meeting shall be made by the Local Committee, in conjunction with the Permanent Secretary and at such other persons as the Council may designate.

ART. 21. A General Session shall be held at 10 o'clock, A.M., on the first day of the meeting, and at such other times as the Council may direct.

SECTIONS AND SUBSECTIONS.

ART. 22. The Association shall be divided into Sections, namely :—A, *Mathematics and Astronomy*; B, *Physics*; C, *Chemistry, including its application to Agriculture and the Arts*; D, *Mechanical Science and Engineering*; E, *Geology and Geography*; F, *Zoology*; G, *Botany*; H, *Anthropology*; I, *Social and Economic Science*. The Council shall have power to consolidate any two or more Sections temporarily, and such consolidated Sections shall be presided over by the Senior Vice President and Secretary of the Sections comprising it.

ART. 23. Immediately on the organization of a Section there shall be three members or fellows elected by ballot after open nomination, who, with the Vice President and Secretary and the Vice President and Secretary of the preceding meeting, shall form its Sectional Committee. The Sectional Committees shall have power to fill vacancies in their own numbers. Meetings of the Sections shall not be held at the same time with a General Session. The Sectional Committee may invite distinguished Foreign Associates present at any meeting to serve as Honorary members of said Committee.

ART. 24. The Sectional Committee of any Section may at its pleasure form one or more temporary Subsections, and may designate the officers thereof. The Secretary of a Subsection shall, at the close of the meeting, transmit his records to the Secretary of the Section.

ART. 25. No paper shall be read in any Section or Subsection until it has been placed on the program of the day by the Sectional Committee.

SECTIONAL COMMITTEES.

ART. 26. The Sectional Committees shall arrange and direct the business of their respective Sections. They shall prepare the daily programs and give them to the Permanent Secretary for printing at the earliest moment practicable. No titles of papers shall be entered on the daily programs except such as have passed the Committee. No change shall be made in the program for the day in a Section without the consent of the Sectional Committee. The Sectional Committees may refuse to place the title of any paper on the program ; but every such title, with the abstract of the paper or the paper itself, must be referred to the Council with the reasons why it was refused. The Sectional Committee shall also make nominations to the General Committee for Vice President and Secretary of their respective Sections as provided for in Article 19.

ART. 27. The Sectional Committees shall examine all papers and abstracts referred to the Sections, and they shall not place on the program any paper inconsistent with the character of the Association ; and to this end they have power to call for any paper, the character of which may not be sufficiently understood from the abstract submitted.

PAPERS AND COMMUNICATIONS.

ART. 28. All members and fellows must forward to the Secretary of the proper Section or to the Permanent Secretary, as early as possible, and when practicable before the convening of the Association, full titles of all the papers which they propose to present during the meeting, with a statement of the time that each will occupy in delivery, and also such abstracts of their contents as will give a general idea of their nature ; and no title shall be considered by a Sectional Committee until an abstract of the paper or the paper itself has been received.

ART. 29. If the author of any paper be not ready when called upon in the regular order to the official program, the title may be dropped to the bottom of the list.

ART. 30. Whenever practicable, the proceedings and discussions at General Sessions, Sections and Subsections shall be reported by professional reporters but such reports shall not appear in print as the official reports of the Association unless revised by the Secretaries.

PRINTED PROCEEDINGS.

ART. 31. The Permanent Secretary shall have the Proceedings of each meeting printed in an octavo volume as soon after the meeting as possible, beginning one month after adjournment. Authors must prepare their papers or abstracts ready for the press, and these must be in the hands of the Secretaries of the Sections before the final adjournment of the meeting, otherwise only the titles will appear in the printed volume. The Council shall have power to order the printing of any paper by abstract or title only. Whenever practicable, proofs shall be forwarded to authors for revision. If any additions or substantial alterations are made by the author of a paper after its submission to the Secretary, the same shall be distinctly indicated. Illustrations must be provided for by the authors of the papers, or by a special appropriation from the Council. Immediately on publication of the volume, a copy shall be forwarded to every member and fellow of the Association who shall have paid the assessment for the meeting to which it relates, and it shall also be offered for sale by the Permanent Secretary at such price as may be determined by the Council. The Council shall also designate the institutions to which copies shall be distributed.

LOCAL COMMITTEE.

ART. 32. The Local Committee shall consist of persons interested in the objects of the Association and residing at or near the place of the proposed meeting. It is expected that the Local Committee, assisted by the officers of the Association, will make all essential arrangements for the meeting, and issue a circular giving necessary particulars, at least one month before the meeting.

LIBRARY OF THE ASSOCIATION.

ART. 33. All books and pamphlets received by the Association shall be in the charge of the Permanent Secretary, who shall have a list of the same printed and shall furnish a copy to any member or fellow on application. Members and fellows who have paid their assessments in full shall be allowed to call for books and pamphlets, which shall be delivered to them at their expense, on their giving a receipt agreeing to make good any loss or damage and to return the same free of expense to the Secretary at the time specified in the receipt given. All books and pamphlets in circulation must be returned at each meeting. Not more than five books, including volumes, parts of volumes, and pamphlets, shall be held

at one time by any member or fellow. Any book may be withheld from circulation by order of the Council. [The Library of the Association was, by vote of the Council in 1895, placed on deposit in the Library of the University of Cincinnati, Ohio. Members can obtain the use of books by writing to the Librarian of the University Library, Cincinnati, Ohio.]

ADMISSION FEE AND ASSESSMENTS.

ART. 34. The admission fee for members shall be five dollars in addition to the annual assessment. On the election of any member as a fellow an additional fee of two dollars shall be paid.

ART. 35. The annual assessment for members and fellows shall be three dollars.

ART. 36. Any member or fellow who shall pay the sum of fifty dollars to the Association, at any one time, shall become a Life Member, and as such, shall be exempt from all further assessments, and shall be entitled to the Proceedings of the Association. All money thus received shall be invested as a permanent fund, the income of which, during the life of the member, shall form a part of the general fund of the Association; but, after his death, shall be used only to assist in original research, unless otherwise directed by unanimous vote of the Council.

ART. 37. All fees and assessments must be paid to the Permanent Secretary, who shall give proper receipts for the same.

ACCOUNTS.

ART. 38. The accounts of the Permanent Secretary and of the Treasurer shall be audited annually, by Auditors appointed by the Council.

ALTERATIONS OF THE CONSTITUTION.

ART. 39. No part of this Constitution shall be amended or annulled, without the concurrence of three-fourths of the members and fellows present in General Session, after notice given at a General Session of a preceding meeting of the Association.

MEMBERS

OF THE

AMERICAN ASSOCIATION

FOR THE

ADVANCEMENT OF SCIENCE.¹

PATRONS.²

THOMPSON, MRS. ELIZABETH, Stamford, Conn. (22). (Died July, 1899.)
 LILLY, GEN. WILLIAM, Mauch Chunk, Pa. (28). (Died Dec. 1, 1893.)
 HERRMAN, MRS. ESTHER, 59 West 56th St., New York, N. Y. (29).
 McMILLIN, EMERSON, 40 Wall St., New York, N. Y. (37).

MEMBERS.³

Abraham, Abraham, Brooklyn, N. Y. (43).
 Abraham, Walter D., 1833 Venango St., Tioga, Philadelphia, Pa. (47).
 Adams, Comfort A., 13 Farrar St., Cambridge, Mass. (47).
 Adams, C. E., M.D., 29 West Broadway, Bangor, Me. (43). F
 Aldis, Owen F., 230 Monadnock Block, Chicago, Ill. (41). H
 Alford, William V., Garrettsville, Ohio (48). E H
 Allderdice, Wm. H., Lieut. U. S. Navy, care Navy Dep't, Washington,
 D. C. (33). D
 Allen, J. M., Hartford, Conn. (22). D
 Allen, John Robins, 18 S. Ingalls St., Ann Arbor, Mich. (45). B D

¹ The numbers in parentheses indicate the meeting at which the member was elected. The black letters at the end of line indicate the sections to which members belong. The constitution requires that the names of all members two years in arrears shall be omitted from the list, but their names will be restored on payment of arrearages. Members not in arrears are entitled to the annual volume of Proceedings bound in paper. *The payment of ten dollars at one time entitles a member to the subsequent volumes to which he may be entitled, bound in cloth, or by the payment of twenty dollars, to such volumes bound in half morocco.*

² Persons contributing one thousand dollars or more to the Association are classed as Patrons, and are entitled to the privileges of members and to the publications.

The names of Patrons are to remain permanently on the list.

³ Any Member or Fellow may become a Life Member by the payment of fifty dollars. The income of the money derived from a life membership is used for the general purposes of the Association during the life of the member; afterwards it is to be used to aid in original research. Life Members are exempt from the annual assessment, and are entitled to the annual volume. The names of Life Members are printed in small capitals in the regular list of Members and Fellows.

- Allen, Walter S., 34 S. Sixth St., New Bedford, Mass. (39). **C I**
- Alspach, E. F., 455 West Sixth Ave., Columbus, O (48). **H**
- Anderson, Frank P., Epworth, Iowa (46).
- Andrews, E. R., Rochester, N. Y. (41).
- Andrews, Wm. C., Columbia Univ., New York, N. Y. (46).
- Anthony, Mrs. Emilia C., Gouverneur, St. Lawrence Co., N. Y. (47). **G**
- Appleton, Rev. Edw. W., D.D., Ashbourne, Montgomery Co., Pa. (28).
- Ashe, W. W., State Geological Survey, Raleigh, N. C. (47).
- Atkins, Prof. Martin D., Agricultural Coll., Mich. (48). **B**
- Atkinson, Jno. B., Earlington, Hopkins Co., Ky. (26). **D**
- Austin, Dr. George M., Wilmington, Ohio (48). **E F**
- AVERY, SAMUEL P., 4 E. 38th St., New York, N. Y. (36).
- Ayer, Edward Everett, Room 12, The Rookery, Chicago, Ill. (37). **H**
- Ayres, Horace B., U. S. Geological Survey, Washington, D. C. (40).
- Bagg, Rufus Mather, Jr., Ph.D., Box 731, Colorado Springs, Col. (49).
- Baker, A. G., Springfield, Mass. (44).
- Baker, O. M., 499 Main St., Springfield, Mass. (44).
- Balch, Samuel W., 41 Wall St., New York, N. Y. (43).
- Baldwin, Mrs. G. H., 3 Madison Ave., Detroit, Mich. (34). **H**
- Baldwin, Herbert, B., 906 Broad St., Newark, N. J. (43).
- BALDWIN, S. PRENTISS, 736 Prospect St., Cleveland, Ohio (47). **E**
- Ball, Emma L., 207 West Eighth Ave., Columbus, Ohio (48).
- Balliet, Thomas M., Supt. of Schools, Springfield, Mass. (48). **I H**
- BANGS, LEMUEL BOLTON, M.D., 127 E. 34th St., New York, N. Y. (36).
- Bangs, Outram, 240 Beacon St., Boston, Mass. (47). **F**
- BARGE, B. F., Mauch Chunk, Pa. (33).
- Barker, Mrs. Martha M., 26 Eleventh St., Lowell, Mass. (31). **E H**
- Barker, Mrs. Mary E., Collinsville, Conn. (45).
- Barnhart, Arthur M., 185 Monroe St., Chicago, Ill. (42).
- Barrie, Dr. George, 1629 Fourteenth St., N. W., Washington, D. C. (49). **I**
- Barrows, Franklin W., M.D., 45 Park St., Buffalo, N. Y. (47). **F**
- Barton, George Hunt, 16 Lexington Ave., Cambridge, Mass. (47).
- Bartow, Edward, Ph.D., Kansas State University, Lawrence, Kan. (47) **C**
- Barwell, John William, Waukegan, Ill. (47).
- Bashore, Dr. Harvey B., West Fairview, Pa. (46). **E**
- Bates, George Williams, 32033 Buhl Block, Detroit, Mich. (46). **H I**
- Bates, Miss Octavie Williams, A.B., LL.M., 53 Bagg St., Detroit, Mich. (47). **I**
- Batterson, J. G., Hartford, Conn. (23).
- Bausch, Henry, P. O. Drawer 1033, Rochester, N. Y. (41).
- Baxter, James N., care H. E. and C. Baxter, cor. Division and Bedford Sts., Brooklyn, N. Y. (36).
- Beach, Spencer Ambrose, N. Y. Experiment Station, Geneva, N. Y. 41). **G**
- Bean, Thos. E., Box 441, Galena, Ill. (28). **F**
- Becher, Franklin A., 406 Irving Place, Milwaukee, Wis. (41). **I A**

- Beckwith, Miss Florence, 394 Alexander St., Rochester, N. Y. (45). **G**
 BELL, C. M., M.D., 320 Fifth Ave., New York, N. Y. (36).
 Bennett, Rev. N. E., Wilmington, Ohio (47). **A**
 Bennett, Prof. William C., Univ. of Wooster, Wooster, Ohio (48). **C**
 Benneville, James S. de, University Club, 1510 Walnut St., Philadelphia, Pa. (46). **C**
 Bentley, Wilson A., Nashville, Vt. (48).
 Bergey, David H., S. E. cor. 34th and Locust Sts, Philadelphia, Pa. (48).
 Berkeley, Wm. N., Box 65, San Juan, Porto Rico (49).
 Bermann, I., M.D., 1010 I St., N. W., Washington, D. C. (49). **H**
 Berry, John Wilson, C.E., Pittston, Pa. (47). **A B D E I**
 Bessey, Ernst A., U. S. Dep't Agric., Washington, D. C. (49).
 Bevier, Miss Isabel, Univ. of Illinois, Champaign, Ill. (46). **C**
 Beyer, Samuel W., Iowa Agricultural College, Ames, Ia. (47). **E**
 Bickford, Miss Elizabeth E., Ph.D., Vassar College, Poughkeepsie, N. Y. (46). **F**
 Biddle, James G., 944 Drexel Building, Philadelphia, Pa. (33).
 Bien, Julius, 140 Sixth Ave., New York, N. Y. (34). **E H**
 Bierly, Prof. H. E., State Seminary, Tallahassee, Fla. (49). **H**
 Bigelow, Edward F., Editor of Popular Science, Stamford, Conn. (49).
 Biggar, Hamilton F., M.D., 176 Euclid Ave., Cleveland, Ohio (40). **B F**
 BISHOP, HEBER R., Mills Building, New York, N. Y. (36).
 Bitting, Prof. A. W., Purdue Univ., Lafayette, Ind. (46).
 Blair, Mrs. Eliza N., Manchester, N. H. (40).
 Blake, Edwin Mortimer, 230 Washington Ave., Brooklyn, N. Y. (43).
 BLISH, W. G., Niles, Mich. (33). **B D**
 BLOUNT, HENRY FITCH, "The Oaks," Washington, D. C. (32). **I B**
 Bogert, Marston Taylor, Havemeyer Hall, Columbia University, New York, N. Y. (47). **C**
 Boland, Miss Mary A., 117 West Newton St., Boston, Mass. (47).
 Bonwill, W. G. A., D.D.S., 2009 Chestnut St., Philadelphia, Pa. (47). **F H**
 Bookman, Samuel, Ph.D., 9 E. 62nd St., New York, N. Y. (47). **C**
 Booraem, J. V. V., 204 Lincoln Place, Brooklyn, N. Y. (36).
 Borner, William, The Majestic, 52 and 54 Walton Place, Chicago, Ill. (44).
 Boutwell, John Mason, 10 Weld Hall, Cambridge, Mass. (46). **E**
 Bowker, R. R., 28 Elm St., New York, N. Y. (43). **B**
 Bownocker, Prof. J. A., Ohio State University, Columbus, O. (48). **E**
 Boyd, David, A. M., Ridgeway, Lenawee Co., Mich. (46). **I**
 Boyd, Prof. James Harrington, Univ. of Chicago, Chicago, Ill. (47). **A**
 Brace, Prof. D. B., Univ. of Nebraska, Lincoln, Neb. (48).
 Brace, Miss, E. M., 40 Cortlandt St., Rochester, N. Y. (47).
 BRACKENRIDGE, GEO. W., San Antonio, Texas (41). **I**
 Brackett, Byron B., Ph.D., 722 Union St., Schenectady, N. Y. (46). **B**
 Brackett, Solomon H., St. Johnsbury, Vt. (47). **B**
 Bradford, Prof. Joseph N., Ohio State Univ., Columbus, Ohio (48).

- BRADLEY, ARTHUR C., Newport, N. H. (43).
 Bradley, Charles S., 44 Broad St., New York, N. Y. (40).
 BRADLEY, M. J., 36 Hart St., Brooklyn, N. Y. (43).
 BRADLEY, MILTON, Springfield, Mass. (44). B
 Bramwell, Geo. W., 335 Broadway, New York, N. Y. (43). D
 Brassill, Miss Sarah Ellen, So. Weymouth, Mass. (47) G F
 Brayton, Miss Sarah H., M.D., Evanston, Ill. (33).
 Brice, Judge Albert G., 19 Camp St., New Orleans, La. (32). H
 Briggs, Lyman J., U. S. Dep't Agric., Washington, D. C. (48). B
 Brigham, Prof. Albert P., Hamilton, Madison Co., N. Y. (41).
 Britton, Wiley, Bureau of Pensions, Springfield, Greene Co., Mo. (40). F
 Brooks, Prof. Wm. P., Amherst, Mass. (38). C F
 Brown, Harold W., Ohio State Univ., Columbus, Ohio (48). B C
 Brown, Newton H., Newark, Delaware (48). B D
 Brown, Robert Marshall, Box 75, Portsmouth, N. H. (48).
 Brown, Samuel B., Morgantown, W. Va. (40). E
 Brownell, Silas B., 71 Wall St., New York, N. Y. (36).
 Browning, Philip Embury, Kent Chemical Laboratory, Yale University,
 New Haven, Conn. (46). C
 Brundage, Albert H., Ph.G., M.D., 1153 Gates Ave., Brooklyn, N. Y.
 (43). F G H
 Bryan, Prof. William L., Indiana Univ., Bloomington, Ind. (49). H
 Bryant, Miss D. L., 998 Spring Garden St., Greensboro, N. C. (42). E
 Buckingham, Chas. L., 195 Broadway, New York, N. Y. (28).
 Buffum, Prof. Burt C., State University, Laramie, Wyo. (42). G
 Burgess, Edward S., 11 W. 88th St., New York, N. Y. (47).
 Burnham, Edward J., Manchester, N. H. (47). F
 Burr, Mrs. Laura E., Commercial Hotel, Lansing, Mich. (34). B
 Burton, Prof. Alfred E., Mass. Inst. Technology, Boston, Mass. (40). E
 Burwell, Arthur W., Ph.D., 208 Superior St., Cleveland, Ohio. (37).
 Calkins, Marshall, M.D., 14 Maple St., Springfield, Mass. (29).
 Calvert, Prof. Sidney, M.A., Univ. of Missouri, Columbia, Mo. (47). C
 Campbell, L.L., Ph.D., Westminster College, Fulton, Mo. (48).
 Canfield, James Hulme, Pres. Ohio State Univ., Columbus, Ohio. (48). I
 Cannon, George Lyman, Instructor in Geology and Biology, Denver High
 School (No. 1), Denver, Col. (39). F H
 Card, Fred W., Kingston, R. I. (45). G
 Carpenter, Ford A., U. S. Weather Bureau, San Diego, Cal. (44). B
 Carpenter, Geo. O., Jr., care St. Louis Lead and Oil Co., St. Louis, Mo.
 (29).
 CARTER, JAMES C., 277 Lexington Ave., New York, N. Y. (36).
 Carter, John E., Knox and Coulter Sts., Germantown, Pa. (33). B H
 Carter, Prof. Truman Post, 872 Grove St., Jacksonville, Ill. (46). F G
 Cary, Albert A., 95 Liberty St., New York, N. Y. (36). D
 Cary, Mrs. Elizabeth M. L., 184 Delaware Ave., Buffalo, N. Y. (45). E

- Case, Eckstein, 9 Rockwell St., Cleveland, Ohio. (47).
 Chandler, Richard E., Stillwater, Oklahoma (46). **B D**
 Chaney, Prof. Lucian W., Jr., Carleton College, Northfield, Minn. (45).
 Chase, R. Stuart, 53 Summer St., Haverhill, Mass. (18). **F**
 Cheney, Mrs. Ednah Dow, Jamaica Plain, Mass. (47).
 Chittenden, Frank Hurlbut, U. S. Dep't Agric., Washington, D. C. (48). **F**
 Chrystie, Wm. F., Hastings-on-Hudson, New York, N. Y. (36).
 Clancy, Michael Albert, 1426 Corcoran St., Washington, D. C. (40). **H**
 Clark, Alex. S., Westfield, N. J. (33).
 Clark, Edward, 417 Fourth St., N. W., Washington, D. C. (40).
 Clark, John S., 646 Washington St., Boston, Mass. (31). **I B C**
 Clark, Joseph E., M.D., 396 Fourth St., Brooklyn, N. Y. (43). **A E**
 Clark, Thomas H., 22 Lancaster St., Worcester, Mass. (40).
 Clark, Wm. Brewster, M.D., 50 E. 31st St., New York, N. Y. (33). **F C**
 Clarke, Miss Cora H., 91 Mt. Vernon St., Boston, Mass. (47). **F**
 Clarke, Thomas, Chapel Hill, N. C. (48). **C**
 Clough, Albert L., S.B., Box 14, Manchester, N. H. (45). **B**
 Coates, Prof. Charles E., Ph.D., Louisiana State Univ., Baton Rouge, La. (46). **C**
 COE, HENRY W., M.D., "The Marquam," Portland, Oregon. (32). **H F**
 Coit, J. Milner, Ph.D., Saint Paul's School, Concord, N. H. (33). **B C E**
 Colgate, Abner W., Morristown, N. J. (44).
 Colie, Edw. M., East Orange, N. J. (30). **E I**
 Collin, Rev. Henry P., 58 Division St., Coldwater, Mich. (37). **H**
 Comstock, Prof. Charles Worthington, Golden, Col. (47). **D A**
 Comstock, Dr. T. Griswold, 3401 Washington Ave., St. Louis, Mo. (29). **F H**
 Conant, Miss E. Ida, 42 W. 48th St., New York, N. Y. (33). **H I F**
 Cook, Dr. Charles D., 162 Remsen St., Brooklyn, N. Y. (25).
 Cook, Melville T., Greencastle, Ind. (45). **G**
 Cooke, George Willis, Park St., Wakefield Park, Wakefield, Mass. (47). **H I**
 Cooley, Grace E., Ph.D., Wellesley College, Wellesley, Mass. (47). **G**
 Cope, Thos. P., Awbury, Germantown, Pa. (33). **I**
 Copeland, Edwin Bingham, Morgantown, W. Va. (45). **G**
 Corbett, Prof. L. C., W. Virginia Univ., Morgantown, W. Va. (48).
 Corcoran, Dr. Luke, Maple St., Springfield, Mass. (44). **H**
 Cornman, Oliver P., Ph.D., 2252 N. 20th St., Philadelphia, Pa. (46). **H**
 Courtis, William Munroe, 449 Fourth Ave., Detroit, Mich. (46). **E C G**
 Cowell, Jno. F., Botanic Garden, West Seneca, N. Y. (35).
 Cowles, Miss Louise F., Mt. Holyoke College, So. Hadley, Mass. (47). **E**
 Cox, Charles F., Grand Central Depot, New York, N. Y. (43).

- Coyle, Rev. John S., S.J., Boston College, 763 Harrison Ave., Boston, Mass. (48). **B**
- Crafts, Robert H., 2329 S. 6th St., Minneapolis, Minn. (32). **I B**
- Craig, John, Ames, Iowa (41).
- Crane, Walter, Sup't Carnegie Free Library, Braddock, Pa. (47). **G**
- Crawford, John, Leon, Nicaragua, C. A. (40). **E H**
- Crawley, Edwin S., Ph.D., Springfield Ave., Chestnut Hill, Philadelphia, Pa. (45).
- Crook, Alja Robinson, Ph.D., 1914 Sheridan Road, Evanston, Ill. (47). **E**
- Crosby, Prof. W. O., Mass. Institute Technology, Boston, Mass. (47). **E**
- CROWELL, A. F., Woods Holl, Mass. (30). **C**
- Cruikshank, James, LL.D., 206 S. Oxford St., Brooklyn, N. Y. (36).
- Crump, M. H., Col. Commanding 3d Regt., K. S. G., Bowling Green, Ky. (29). **E**
- Cummings, Edgar R., Indiana Univ., Bloomington, Ind. (48).
- Cunningham, Francis A., 1613 Wallace St., Philadelphia, Pa. (33). **DEB**
- Cunningham, John F., 446 Euclid Ave., Cleveland, Ohio (48). **G**
- Cunningham, Prof. Susan J., Swarthmore College, Swarthmore, Del. Co. Pa. (38). **A**
- Cuntz, Johannes H., 325 Hudson St., Hoboken, N. J. (36).
- Currie, C. A., M.D., P. O. Box 1606, Philadelphia, Pa. (48). **F**
- Curtis, William E., Post Building, Washington, D. C. (40). **H I**
- Dabney, Charles W., University of Tennessee, Knoxville, Tenn. (47).
- Dall, Mrs. Caroline H., Washington, D. C. (46).
- Dana, Charles L., 50 W. 46th St., New York, N. Y. (46). **H**
- Davenport, Prof. Eugene, Dean of the College of Agriculture, University of Illinois, Champaign, Ill. (39).
- Davidson, R. J., Experiment Station, Blacksburg, Va. (40). **C**
- Davis, Abial B., A.M., 129 East Lincoln Ave., Mt. Vernon, N. Y. (44). **A**
- DAVIS, ANDREW MCFARLAND, 10 Appleton St., Cambridge, Mass. (35). **H**
- Davis, Prof. Charles, A., Alma, Mich. (46). **G**
- Davis, J. Woodbridge, 523 West 173d St., New York, N. Y. (47). **A**
- Davison, John M., 60 Oxford St., Rochester, N. Y. (38). **C**
- Dean, Seth, Glenwood, Iowa (34). **D**
- Deghuée, Joseph A., 247 Harrison St., Brooklyn, N. Y. (40). **C**
- Delabarre, E.B., Ph.D., Brown Univ., Providence, R. I. (49) **H I**
- Delafield, Maturin L., Jr., Fieldston, Riverdale, New York, N. Y. (43). **G**
- Detmers, Fredericka, 1315 Neil Ave., Columbus, Ohio (48). **G**
- Dinsmare, Prof. Thos, H., Jr., Syracuse, N. Y. (29). **B C**
- Eixon, Roland B., Peabody Museum, Cambridge, Mass. (46). **H**
- Dodge, Martin, Cleveland, Ohio (47). **D**
- Dodge, Philip T., Tribune Building, New York, N. Y. (44). **B D**
- Dodge, Richard E., Teachers Coll., Columbia Univ., New York, N. Y. (49).
- Doherty, Henry L., 40 Wall St., New York, N. Y. (48). **B C D**
- Doty, Paul, Grand Rapids Gas Light Co., Grand Rapids, Mich. (43). **D**

- Doubt, Prof. Thomas E., Univ. of Washington, Seattle, Wash. (48). **B**
- Doughty, John W., 165 Johnston St., Newburgh, N. Y. (19). **E**
- Dow, H. H., Midland, Mich. (47). **C**
- Drescher, Willibald A. E., P. O. Drawer 1033, Rochester, N. Y. (41). **F**
- Drummond, Isaac Wyman, Ph.D., 436 W. 22nd St., New York, N. Y. (36).
- Du Bois, Howard Weidner, Central High School, Philadelphia, Pa. (47). **A**
- Duffy, Rev. James S., 474 Sackett St., Brooklyn, N. Y. (43).
- Duggar, Benjamin Minge, Cornell University, Ithaca, N. Y. (45).
- Dunn, Louise Brisbin, Barnard College, Columbia Univ., New York, N. Y. (47). **G**
- Durkee, Esther M., M.D., 1139 Third Ave., Detroit, Mich. (46).
- Dutton, Charles Frederic, Jr., A.B., 349 Franklin Ave., Cleveland, Ohio (47).
- Duvel, Joseph W. T., Ohio Agric. Expt. Station, Wooster, Ohio. (48). **G**
- Eaton, Rev. Charles A., Toronto, Can. (47).
- Edelheim, Carl, 253-259 N. Broad St., Philadelphia, Pa. (33).
- Edgar, Clinton G., 72 Jefferson Ave., Detroit, Mich. (46).
- Edwards, Prof. John W., Iowa Wesleyan Univ., Mt. Pleasant, Iowa (48).
- Ekeley, Prof. Jodn B., The Cathedral School of Saint Paul, Garden City, N. Y. (42). **C**
- Ellis, Frederick W., M.D., Monson, Mass. (47). **B H**
- Emery, Albert Hamilton, Jr., 312 Main St., Stamford, Conn. (47). **D**
- ESTES, DANA, Brookline, Mass. (29). **I H**
- Evans, Alexander W., M.D., 12 High St., New Haven, Conn. (45). **G**
- Evans, Henry Brown, Flower Observ., Upper Darby, Pa. (48). **A**
- Evans, Samuel G., 211 Main St., Evansville, Ind. (39). **F**
- Evans, William Lloyd, Colorado Springs, Col. (46).
- Evers, Edward, M.D., 1861 N. Market St., St. Louis, Mo. (28). **F H**
- Fairbanks, Miss Charlotte, Ph.D., Wellesley College, Wellesley, Mass. (47). **C**
- Fairchild, B. T., P. O. Box 1120, New York, N. Y. (36).
- Falconer, William, Schenley Park, Pittsburg, Pa. (29).
- Farwell, Oliver A., 1225 Jefferson Ave., Detroit, Mich. (46). **G**
- Farwell, Robert Benneson, C.E., 53 Monument Ave., Charlestown, Mass. (47). **D**
- Fawcett, Ezra, 233 Ely St., Alliance, Ohio. (48). **B D**
- Fellows, Charles S., No. 1 High St., Bangor, Me. (34). **F**
- Felt, Charles Wilson, 185 Austin St., Worcester, Mass. (47). **I**
- Fernald, F. A., Broadway and 117th St., New York, N. Y. (43). **C**
- Fessenden, Prof. Reginald A., U. S. Weather Bureau, Washington, D. C., "To be forwarded." (47). **A**
- Field, Archelaus G., M.D., LL.B., Summit Place, Des Moines, Iowa (48).

- Field, George Wilton, 233 Medway St., Providence, R. I. (47).
 Field, W. L. W., Milton, Mass. (47). **F**
 Fielding, Frank E., Virginia City, Storey Co., Nev. (46).
 Fink, Prof. Bruce, Upper Iowa University, Fayette, Iowa (45). **E F**
 Fireman, Peter, Ph.D., Columbian University, Washington, D. C. (45).
 Fischer, Louis Albert, U. S. C. and G. Survey, Washington, D. C. (47).

A B C

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 Flanders, Charles S., Franklin, Mass. (42). **E**
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E G

- Flint, Albert Freer, 8 Congress St., Boston, Mass. (47).
 Floody, Rev. Robert John, Sc.M., S.T.B., So. Ashburnham, Mass. (44).

H

- Flynn, Henry Franklin, U. S. C. and G. Survey, Washington, D. C. (47).

A

- Flynn, Oscar R., Columbus, Ohio (46). **C**
 Focke, Theodore M., Case School of Applied Science, Cleveland, Ohio (44). **B**

- Foley, Prof. Arthur Lee, Indiana University, Bloomington, Ind. (46). **B**
 Folkmar, Daniel, D.S.S., D.U. Paris, care Mrs. Geo. Cuddeback, 5 Glen Etta St., Janesville, Wis. (46). **H**

- Fowler, Edwin H., U. S. C. and G. Survey, Washington, D. C. (47).
 Francis, Jno. Miller, Director Chemical Dep't, Parke, Davis & Co., 784 Congress St. E., Detroit, Mich. (46). **C**

- Franklin, Edward Curtis, Ph.D., Kansas State Univ., Lawrence, Kan. (47). **B G**

- Freeman, Prof. T. J. A., Boston College, 761 Harrison Ave., Boston, Mass. (33). **B C**

- French, Wm. H., Oak Park, Ill. (47). **I**

- Fretz, Dr. John Edgar, 222 Spring Garden St., Easton, Pa. (46). **F G H**
 Frick, Prof. John H., Central Wesleyan Coll., Warrenton, Mo. (27).

E F B A

- Frisbie, J. F., M.D., Box 455, Newton, Mass. (29). **E H**
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 FROTHINGHAM, MRS. FREDERICK, Milton, Mass. (31). **F A I**
 Fuller, Charles Gordon, M.D., 38 Central Music Hall, Chicago, Ill. (35).

F

- Fuller, Melville W., LL.D., 1800 Massachusetts Ave., Washington, D. C. (40).

- Gable, George D., Ph.D., Parsons College, Fairfield, Iowa (40). **A B**
 Gage, Mrs. S. H., Ithaca, N. Y. (48). **F**
 Galloway, Prof. Thomas Walton, Missouri Valley College, Marshall, Mo. (45). **F G**

- Gardiner, Rev. Frederic, Jr., Pomfret, Conn. (47). **F H**

- Gardner, Rev. Corliss B., Ripley, N. Y. (29). **A B I**
 GARLAND, JAMES, 2 Wall St., New York, N. Y. (36).
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 Garriott, Edward B., U. S. Weather Bureau, Washington, D. C. (49).
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 Gause, Fred Taylor, Man'gr Standard Oil Co. of N. Y., T. and B. Dep't, Yokohama, Japan (40).
 GENTH, FRED. A., Lansdowne, Del. Co., Pa. (32). **C E**
 Getman, Frederick H., 196 Atlantic St., Stamford, Conn. (45). **B**
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 Girty, George H., Ph.D., U. S. Geol. Survey, Washington, D. C. (48).
 Gladden, Washington, D.D., LL.D., Columbus, Ohio (48).
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A
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B
 Goodyear, William H., Museum, Eastern Parkway, Brooklyn, N. Y. (43).
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C
 Gordon, Robert H., Cumberland, Md. (48). **E F**
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 Green, Edgar Moore, M.D., Easton, Pa. (36). **C G H**
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 Greene, Jacob L., President Mut. Life Insurance Co., Hartford, Conn. (23).
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 Greenleaf, John T., Owego, N. Y. (33). **F**
 Greenleaf, Robert Willard, M.D., A.M., 561 Boylston St., Boston, Mass. (47).
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B C

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(48). **E I**

Grower, George G., Ansonia, Conn. (43). **B D**

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Haffner, Miss Netta W., Sturgis, Mich. (46). **C**

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(47).

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Harris, Miss Emma G., Woonsocket, R. I. (44). **H F E**

Hart, C. Porter, M.D., Wyoming Co., Ohio (30). **F**

Hart, Rev. Prof. Samuel, Berkeley Divinity School, Middletown, Conn.
(22). **A**

Hartz, J. D. Aug., College Point, N. Y. (43).

Hartzell, Prof. J. Culver, Illinois Wesleyan Univ., Bloomington, Ill. (49). **E**

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Hays, Prof. Willet M., St. Anthony Park, Minn. (45).

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B F

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 HOE, MRS. R., JR., 11 E. 36th St., New York, N. Y. (36).
 Hoe, Mrs. Richard M., 11 E. 71st St., New York, N. Y. (36).
 Hoffmann, Very Rev. Eugene Aug., D.D., 1 Chelsea Square, New York. N. Y. (36).
 Hogeboom, Miss Ellen C., Shelbyville, Ky. (46). **C**
 Holden, L. E., The Hollenden, Cleveland, Ohio (32).
 HOLDEN, MRS. L. E., The Hollenden, Cleveland, Ohio (35).
 Hollinshead, Warren H., Vanderbilt Univ., Nashville, Tenn. (37).
 Holmes, Dr. Christian R., 8-10 East Eighth St., Cincinnati, Ohio (48).
 Holmes, W. Newton, Pritchett School Institute, Glasgow, Mo. (36).
 Holstein, Geo. Wolf, Wolfe City, Texas (28). **E H**
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 Holton, Henry D., A.M., M.D., Brattleboro, Vt. (44). **I**
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 Hood, William, 512 Van Ness Ave., San Francisco, Cal. (35). **D**
 Hooker, Prof. Henrietta E., Mt. Holyoke College, South Hadley, Mass. (45). **G**
 Hooper, Prof. Franklin W., Curator Brooklyn Inst., Brooklyn, N. Y. (43).
 Hopkins, Prof. A. J., Amherst College, Amherst, Mass. (44) **C**
 Hopkins, George I., Manchester, N. H. (47). **A B**
 Hopkins, N. Grant S., Cornell Univ., Ithaca, N. Y. (41). **F**
 Hopkins, N. Monroe, 1730 I St., N. W., Washington, D. C. (48).
 Hormell, Prof. William G., Ohio Wesleyan Univ., Delaware, Ohio (48). **B**
 Hoskins, William, La Grange, Cook Co., Ill. (34). **C**
 Houk, Mrs. Eliza P. T., 41 W. 2nd St., Dayton, Ohio (48).
 Howard, Mrs. Leland O., 1336 30th St., N. W., Washington, D. C. (49). **H**
 Hubbard, C. S., M.D., 44 Congress St., Bradford, Pa. (49).
 Hudson, George H., Plattsburgh, Clinton, Co., N. Y. (31). **F**
 Hudson, John E., 125 Milk St., Boston, Mass. (49). **I**
 Hume, Alfred, C. E., University, Miss. (39). **A**
 Hummel, John A., B.S.A., State Capitol, St. Paul, Minn. (48).
 Humphrey, Daniel, M.D., Lawrence, Mass. (18). **F H**
 Humphrey, Richard L., Testing Laboratory, City Hall, Philadelphia, Pa. (48). **D**
 Hungerford, W. S., care W. Ames & Co., Jersey City, N. J. (43). **D**
 Hunt, Miss Sarah E., Salem, Mass. (20).
 Huntington, Edward Vermilye, Williams College, Williamstown, Mass. (47). **A**
 Hurd, E. O., Plainville, Hamilton Co., Ohio (30). **E F**
 Hutchinson, Wm. M., M.D., 207 Clinton St., Brooklyn, N. Y. (40). **C B**

- Huxley, Henry Minor, Hotel Hunnewell, Newton, Mass. (48).
 Hyams, Isabel F., 26 Wales St., Dorchester, Mass. (47). **C**
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 Hyde, Charles Gilman, Room 140 State House, Boston, Mass. (47). **D**
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 Hyde, Frederick E., Jr., 20 W. 53d St., New York, N. Y. (43). **H**
 Ingham, Wm. A., 320 Walnut St., Philadelphia, Pa. (33). **E**
 Jaffa, Myer Edward, Berkeley, Cal. (47).
 James, Bushrod W., M.D., A.M., LL.D., N. E. cor. 18th and Green Sts., Philadelphia, Pa. (29). **F**
 James, Charles C., M.A., Dep't Agric., Toronto, Can. (46). **I**
 Jeffreis, Wm. W., 442 Central Park, West, New York, N. Y. (33). **E**
 Jeffries, William A., 126 Beacon St., Boston, Mass. (47). **F**
 Jenks, Wm. H., Brookville, Pa. (38).
 Johnson, Miss Isabel Louise, 467 Mass. Ave., Station A, Boston, Mass. (47). **E**
 Johnson, Nels, Manistee, Mich. (41). **A B**
 Johnson, W. Smythe, Yale Univ., New Haven, Conn. (49). **H**
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 Jones, Prof. Frederick S., Univ. of Minnesota, Minneapolis, Minn. (45).
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 Josephs, Lyman C., Box 311, Newport, R. I. (47).
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 Kearney, Thos. H., Jr., U. S. Dep't Agric., Washington, D. C. (47). **G**
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 Kelley, Mrs. Florence, Room 614, United Charities Building, 105 E. 22nd St., New York, N. Y. (48).
 Kelley, John Harris, 315 N. Vine St., Nashville, Tenn. (44). **C**
 Kellogg, John H., M.D., Battle Creek, Mich. (24). **F**
 Kelsey, Harlan Page, 1150 Tremont Building, Boston, Mass. (47). **G**
 Kennedy, Dr. George Golding, Readville, Mass. (40). **F**
 KENNEDY, HARRIS, 284 Warren St., Roxbury, Mass. (40). **E F**
 Kennedy, Patrick Beveridge, Ithaca, N. Y. (47). **G**
 Kester, Fred. Edward, Ohio State Univ., Columbus, Ohio (48). **B**
 Kimball, Albert B., M.E., English High School, Worcester, Mass. (47). **B**
 Kimball, S. I., Life Saving Service, U. S. Treasury Dep't, Washington, D. C. (49). **I**

- Kinder, Miss Sarah A., 28 Lockerbie St., Indianapolis, Ind. (39). **H**
- King, A. F. A., M.D., 1315 Massachusetts Ave., N. W., Washington, D. C. (29). **F H**
- King, Miss Ada M., 8 Ardmore St., Rochester, N. Y. (39). **E I**
- King, Geo. B., Lawrence, Mass. (47).
- King, Miss Harriet M., Salem, Mass. (28).
- Kinraid, Thomas Burton, 38 Spring Park Avenue, Jamaica Plain, Mass. (47).
- Kinsley, Carl, care Signal Office, Governor's Island, New York, N. Y. (47). **B**
- Kittredge, Miss H. A., North Andover, Mass. (37). **F**
- Klie, G. H. Chas., M.D., 5100 N. Broadway, St. Louis, Mo. (39). **C F**
- Knapp, G. N., Stanton, Minn. (46). **G H**
- Kneeland, Stillman F., LL.D., 110 Berkeley Pl., Brooklyn, N. Y. (43). **I**
- Knight, Prof. Charles M., 219 S. Union St., Akron, Ohio (29). **C B**
- Knipp, Charles Tobias, 205 Huestis St., Ithaca, N. Y. (46). **B**
- Koues, Miss Elizabeth L., Garden City, Long Island, N. Y. (41). **I**
- Kraemer, Prof. Henry, 145 N. 10th St., Philadelphia, Pa. (47). **G**
- Krécsy, Prof. Béla, VI Buljovsxky u. 22, Budapest, Hungary. (41). **C**
- Kremers, Prof. Edward, University of Wisconsin, Madison, Wis. (47).
- Kroeber, A. L., 509 W. 142nd St., New York, N. Y. (47). **H**
- Kuhne, F. W., 19 Court St., Fort Wayne, Ind. (38). **A F**
- La Forge, Lawrence, Alfred University Observ., Alfred, N. Y. (43).
- Lampard, Henry, 102 Shuter St., Montreal, Can. (40). **C D E**
- Land, Charles H., 36 Adams Ave. W., Detroit, Mich. (46).
- LANDERO, CARLOS F. DE, Ass't Director, Pachuca and Real del Monte Mining Co., Pachuca, Mexico. (36). **C B**
- Lane, Horace Manley, M.D., Caixa 14, S. Paulo, Brazil, S. A. (46).
- Lang, Prof. Henry R., Yale University, New Haven, Conn. (41). **H**
- Langmann, Gustav, M.D., 121 W. 57th St., New York, N. Y. (36).
- Lare, H. S. P., M.D., 3436 St. Vincent Ave., St. Louis, Mo. (49).
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- Lawrence, J. P. S., Past Ass't Eng. U. S. N., U. S. Navy Dep't, Washington, D. C. (35). **D**
- Lawrence, Harry E., Rochester University, Rochester, N. Y. (44). **B**
- Laws, Frank Arthur, Mass. Institute Technology, Boston, Mass. (47).
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- Lee, Prof. Willis Thomas, M.S., Brooklyn, Susquehanna Co., Pa. (47). **E F**
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- LEWIS, CLARENCE MCKENZIE, Bridge Engineer, B. & O.S.W. R. R. Co., Cincinnati, Ohio (47). **D**

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 Lewis, Joseph Volney, Clemson College, S. C. (45). **E C**
 Lindenkohl, Henry, U. S. C. and G. Survey, Washington, D. C. (47).
 Lindsay, Alexander M., Rochester, N. Y. (41).
 Lindsey, Edward, Warren, Pa. (48). **H**
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 Lomb, Henry, P. O. Drawer 1033, Rochester, N. Y. (41).
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 Lord, Prof. H. C., Ohio State Univ., Columbus, Ohio (44). **A**
 Low, A. A., Columbia Heights, Brooklyn, N. Y. (43). **A**
 Lufkin, Albert, Newton, Iowa (31). **D E**
 Lugg, Dr. Otto, Minnesota State Agric. Station, St. Anthony Park, Minn. (47). **F**
 Lull, Richard S., Amherst, Mass. (43). **F H**
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 Lundin, Carl, A. R., care Messrs. Alvan Clark and Sons, Cambridgeport, Mass. (47). **A**
 Luquer, Lea McIlvaine, Columbia Univ., New York, N. Y. (49).
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 McFadden, Prof. L. H., Westerville, Ohio (32). **B C**
 McFadden, Thomas G., Otterbein Univ., Westerville, Ohio (48). **C**
 McFarland, Robert W., LL.D., Oxford, Ohio (33). **A**
 McGee, Miss Emma R., Farley, Iowa (33). **H**
 McGiffert, James, 169 8th St., Troy, N. Y. (44). **A**
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 McKee, George C., State College, Pa. (48). **B D A**
 McLaughlin, George Eyerman, M.D., 41 Crescent Ave., Jersey City, N. J. (47). **H**

- McLoughlin, T. S. (47).
 McMILLAN, SMITH B., Signal, Columbiana Co., Ohio (37).
 MacNutt, Barry, Lehigh University, So. Bethlehem, Pa. (47). **B**
 McPherson, Wm. D., Lock Box N, So. Framingham, Mass. (47).
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 MARBLE, MANTON, Bedford, N. Y. (36).
 Marble, J. Russel, Worcester, Mass. (31). **CE**
 Marble, Miss Sorah, Woonsocket, R. I. (29). **C**
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 Wagner, George, 1120 E. University Ave., Ann Arbor, Mich. (46). **C F G**
 Waldron, Clare B., Agricultural College, Fargo, N. D. (45).
 Wales, Salem H., 25 E. 55th St., New York, N. Y. (36).
 Walker, Byron Edmund, Toronto, Can. (38). **E**

Walker, George C., Room 519 Rookery Building, Chicago, Ill. (17).

Walker, James, 49 Maiden Lane, New York, N. Y. (43).

Wallace, Edwin Corby, Ph.G., Foot of Sixth St., Long Island City, N. Y. (47).

WALSH, THOMAS F., Le Roy and Phelps Place, Washington, D. C. (49).

D

Ward, Frank A., 16-26 College Ave., Rochester, N. Y. (40).

Ward, J. Langdon, 120 Broadway, New York, N. Y. (29). I

Ward, Robert De C., Harvard Univ., Cambridge, Mass. (47).

Wardle, Harriet N., 125 N. 10th St., Philadelphia, Pa. (47). EH

Ware, Miss Mary L., 41 Brimmer St., Boston, Mass. (47).

Ware, Wm. R., Columbia University, New York, N. Y. (36).

Warner, Charles F., 837 State St., Springfield, Mass. (45). B

Warren, Prof. Howard C., Princeton Univ., Princeton, N. J. (46).

Warren, Mrs. Susan C., 67 Mt. Vernon St., Boston, Mass. (29).

Warrington, Jas. N., 1711 South Hope St., Los Angeles, Cal. (34). DAB

WATERS, GEO. F., 6 Somerset St., Boston, Mass. (29). BFHED

Watson, Miss C. A., North Andover, Mass. (31). D

Watson, Thomas A., Weymouth, Mass. (42). E

Watters, William, A.M., M.D., 26 S. Common St., Lynn, Mass. (40). EG

Weaver, Gerrit E. Hambleton, A.M., 203 De Kalb Square, West Philadelphia, Pa. (38). GI

Webber, Herbert J., U. S. Dep't Agr., Washington, D. C. (47).

Webster, Mrs. N. B., Vineland, N. J. (43).

Weed, J. N., 244 Grand St., Newburgh, N. Y. (37). EI

Weeks, Fred. Boughton, U. S. Geol. Survey, Washington, D. C. (44). E

Weems, J. B., Ph.D., Iowa Agricultural College, Ames, Iowa (44). C

Weick, Chas. W., Columbia Univ., New York, N. Y. (48). D

Weinzirl, John, 416 S. Arno St., Albuquerque, New Mex. (45). G

Welch, William Henry, M.D., 935 St. Paul St., Baltimore, Md. (47). FH

Wells, Frank, M.D., 178 Devonshire St., Boston, Mass. (47). C

Wells, Samuel, 45 Commonwealth Ave., Boston, Mass. (24). H

Wells, William H., Jr., Lockport, N. Y. (39). E

Wernicke, Prof. Paul, 411 S. Limestone St., Lexington, Ky. (44). AB

Wetzler, Jos., 240-242 W. 23d St., New York, N. Y. (36).

Wheeler, T. B., M.D., 123 Metcalfe St., Montreal, Can. (11).

Wheeler, William, C.E., Concord, Mass. (41).

White, Charles G., Lake Linden, Mich. (46). BC

White, Charles H., Medical Director U. S. N., U. S. Naval Museum of Hygiene, Washington, D. C. (34). C

White, John Williams, 18 Concord Ave., Cambridge, Mass. (47).

White, LeRoy S., 19 Buckingham Ave., Waterbury, Conn. (23).

White, Thaddeus R., 257 W. 45th St., New York, N. Y. (42). A

White, Theodore Greely, Ph.D., A.M., Columbia Univ., New York, N. Y. (47). BE

- Whitfield, Thomas, Ph.D., 240 Wabash Ave., Chicago, Ill. (41). C
 Whiting, Mrs. Francis, 914 W. Lafayette St., Norristown, Pa. (40).
 Whiting, S. B., 11 Ware St., Cambridge, Mass. (33). D
 Whitney, Miss Mary W., Vassar Coll. Observ., Poughkeepsie, N. Y. (47).

A

- Whitney, Willis Rodney, 29 Fairmount, Jamestown, N. Y. (46). C
 Whittemore, Williams C., 1526 N. H. Ave., Washington, D. C. (49).
 Wiegand, Karl McKay, Ithaca, N. Y. (45). G
 Wilbour, Mrs. Charlotte B., Little Compton, R. I. (28).
 Wilcox, Miss Emily T., Meriden, Conn. (33). B A
 Williams, Charles B., Raleigh, N. C. (47).
 Williams, Henry Smith, M.D., 165 W. 82nd St., New York, N. Y. (34). F
 Williams, Mrs. Lydia P., 410 So. 9th St., Minneapolis, Minn. (49). I
 Williamson, Mrs. M. Burton, 1060 W. Jefferson St., Los Angeles, Cal. (44). F

- WILMARTH, MRS. HENRY D., 51 Eliot St., Jamaica Plain, Mass. (40).
 Wilson, Prof. Andrew G., Lenox College, Hopkinton, Iowa (43). E
 Wilson, John C., Cosmos Club, Washington, D. C. (49). I
 Windsor, Sarah Sweet, A.B., M.D., 138 Marlboro St., Boston, Mass. (47).

F H

- Wingate, Miss Hannah S., 15 W. 129th St., New York, N. Y. (31). E I
 Witmer, Dr. Lightner, Univ. of Pennsylvania, Philadelphia, Pa. (46). H
 Wolcott, Mrs. Henrietta L. T., Dedham, Mass. (29).
 Wolff, Frank A., Jr., Ph.D., 1028 Vermont Ave., N. W., Washington, D. C., (47). B
 Wood, Mrs. Cynthia A., 171 W. 47th St., New York, N. Y. (43).
 Wood, Miss Elvira, 198 Adams St., Waltham, Mass. (47).
 Wood, Rob't Williams, 237 Langdon St., Madison, Wis. (46).
 WOOD, WALTER, 400 Chestnut St., Philadelphia, Pa. (33). F I
 Woodbury, Charles T., North Andover, Mass. (47). C
 Woodworth, R. S., Ph.D., Bellevue Med. School, 26th St. and First Ave., New York, N. Y. (49).
 Worcester, Dean C., Ann Arbor, Mich. (46). F H
 Wright, John S., care Eli Lilly & Co., Indianapolis, Ind. (42). G
 Wright, Jonathan, M.D., 73 Remsen St., Brooklyn, N. Y. (43).
 Wright, Rufus, 19 N. May St., Chicago, Ill. (37). B
 WUNDERLICH, FREDERICK W., M.D., 165 Remsen St., Brooklyn, N. Y. (45).
 Würtele, John Hunter, Acton Vale, P. Q., Can. (48).
 Yendell, Paul S., Winter St., Dorchester, Mass. (47). A
 Youmans, Mrs. Celia G., Mount Vernon, N. Y. (36).
 Youmans, Vincent J., Mount Vernon, N. Y. (43).

INCORPORATED SCIENTIFIC BODIES.

[Holding membership under the provisions of Article 3 of the Constitution.]

Manchester Institute of Arts and Sciences, Manchester, N. H. (48).

[933 PATRONS AND MEMBERS.]

SURVIVING FOUNDERS.

[At the Brooklyn Meeting, 1894, a resolution was unanimously adopted by which all the surviving founders of the Association who have maintained an interest in science were made Honorary Life Members of the Association in recognition of their pioneer work in American Science.]

ABBOT, SAMUEL L., Boston, Mass.

BOYD, MARTIN H., Coopersburg, Pa.

GIBBS, WOLCOTT, Newport, R. I.

HONORARY FELLOWS.¹

- ROGERS, PROF. WILLIAM B., Boston, Mass. (1). 1881. (Born Dec. 7, 1804. Died May 30, 1882.) **B E**
- CHEVREUL, MICHEL EUGENE, Paris, France. (35). 1886. (Born Aug. 31, 1786. Died April 9, 1889.) **C**
- GENTH, DR. F. A., 3937 Locust St., Philadelphia, Pa. (24). 1888. (Born May 17, 1820. Died Feb. 2, 1892.) **CE**
- HALL, PROF. JAMES, Albany, N. Y. (1). 1890. (Born in 1811. Died Aug. 7, 1898.)
- GOULD, DR. BENJAMIN APTHORP, Cambridge, Mass. (2). 1895. (Born Sept. 27, 1824. Died Nov. 26, 1896.) **A B**
- LEUCKART, PROF. RUDOLF. (44). 1895. (Born in Helmstedt, Braunschweig, Germany, Oct. 7, 1823. Died in Leipzig, Feb. 7, 1898.) **F**
- GIBBS, PROF. WOLCOTT, Newport, R. I. (1). 1896. **CB**
- WARINGTON, ROBERT, F. R. S., Rothamsted, Harpenden, England (40). 1899. **C**

FELLOWS.²

- Abbe, Prof. Cleveland, Meteorologist, Weather Bureau, U. S. Dep't. Agr., Washington, D. C. (16). 1874. **BA**
- Abbe, Cleveland, Jr., Winthrop Normal and Industrial College of So. Caro., Rock Hill, S. C. (44). 1899. **E**
- Abbe, Dr. Robert, 11 W. 50th St., New York, N. Y. (36). 1892.
- ABBOT, DR. SAMUEL L., 90 Mt. Vernon St., Boston, Mass. (1).
- Abert, S. Thayer, Metropolitan Club, Washington, D. C. (30). 1891. **ABI**
- Adrianse, John S., 105 E. 39th St., New York, N. Y. (39). 1895. **C**
- Alden, John, Pacific Mills, Lawrence, Mass. (36). 1898.
- Aldrich, Wm. S., Prof. Electrical Eng., Univ. of Illinois, Champaign, Ill. (43). 1897. **D**
- Alvord, Maj. Henry E., U. S. Dept. Agr., Washington, D. C. (29). 1882. **I**
- Alwood, Prof. Wm. B., Agricultural and Mechanical College and Experiment Station, Blacksburg, Va. (39). 1891. **F**
- Anderson, Alexander P., The University of Minnesota, Minneapolis, Minn. (45). 1899. **G**
- Andrews, Prof. Launcelot W., Iowa City, Iowa. (39). 1891. **C**
- Anthony, Prof. Wm. A., Cooper Union, New York, N. Y. (28). 1880. **B**
- Arthur, J. C., Lafayette, Ind. (21). 1883. **G**
- Ashmead, Wm. H., U. S. National Museum, Washington, D. C. (40). 1892. **F**
- Atkinson, Edward, 31 Milk St., Boston, Mass. (29). 1881. **ID**
- Atkinson, George F., Cornell University, Ithaca, N. Y. (39). 1892. **G**

¹ See ARTICLE VI of the Constitution. ² See ARTICLE IV of the Constitution.

. The number in parenthesis indicates the meeting at which the member joined the Association; the date following is the year when made a Fellow; the black letters at end of line are those of the sections to which the Fellow belongs.

When the name is given in small capitals, it designates that the Fellow is also a Life Member.

- Atwater, Prof. W. O., Wesleyan Univ., Middletown, Conn. (29). 1882. **C**
 Atwell, Charles B., 1938 Sherman Ave., Evanston, Ill. (26). 1890. **G**
 Auchincloss, Wm. S., 6363 Drexel Road, Philadelphia, Pa. (29). 1886. **DA**
 Austen, Prof. Peter T., 99 Livingston St., Brooklyn, N. Y. (44). 1896. **C**
 Avery, Elroy, M., Ph.D., LL.D., 657 Woodland Hills Ave., Cleveland, Ohio (37). 1889. **B**
 Ayres, Prof. Brown, Tulane University, New Orleans, La. (31). 1885. **B**
 Babcock, Prof. S. Moulton, Madison, Wis. (33). 1885. **C**
 Bailey, E. H. S., Lawrence, Douglass Co., Kan. (25). 1889. **C**
 Baker, Frank M.D., 1728 Columbia Road, Washington, D. C. (31). 1886.
F H
 Baker, Marcus, U. S. Geol. Survey, Washington, D. C. (30). 1882. **A**
 Baldwin, Prof. J. Mark, Princeton Univ., Princeton, N. J. (46). 1898. **H**
 Ballard, Harlan H., 50 South St., Pittsfield, Mass. (31). 1891. **EF**
 Barbour, Prof. Erwin Hinckley, The Univ. of Nebraska, Lincoln, Nebr. (45). 1898. **E**
 BARKER, PROF. G. F., 3909 Locust St., Philadelphia, Pa. (13). 1875. **BC**
 Barnard, Edward E., Yerkes Observatory, Williams Bay P. O., Wis. (26). 1883. **A**
 Barnes, Chas. Reid, Ph.D., Univ. of Chicago, Chicago, Ill. (33). 1885. **G**
 Barnum, Miss Charlotte C., Ph.D., 344 Humphrey St., New Haven, Conn. (36). 1896. **A**
 Barrows, Walter B., Agricultural College, Ingham Co., Mich. (40). 1897. **F**
 Bartlett, Prof. Edwin J., Dartmouth College, Hanover, N. H. (28). 1883.
C
 Bartlett, John R., Captain U. S. N., Lonsdale, R. I. (30). 1882. **EB**
 Bartley, Elias H., M.D., 21 Lafayette Ave., Brooklyn, N. Y. (33). 1894. **C**
 Barton, G. E., 212 North 3d St., Millville, N. J. (46). 1898. **C**
 Barton, Samuel M., Ph.D., The Univ. of the South, Sewanee, Tenn. (43). 1899. **A**
 Barus, Carl, Ph.D., Wilson Hall, Brown Univ., Providence, R. I. (33). 1887. **B**
 Bascom, Miss Florence, Bryn Mawr College, Bryn Mawr, Pa. (42). 1897.
E
 Baskerville, Charles, Univ. of North Carolina, Chapel Hill, N. C. (41). 1894. **CE**
 Bassett, Homer F., Waterbury, Conn. (23). 1874. **F**
 Bauer, Louis A., Ph.D., U. S. C. and G. Survey, Washington, D. C. (40). 1892. **A**
 Bausch, Edw., P. O. Drawer 1033, Rochester, N. Y. (26). 1883. **ABCF**
 Beal, Prof. Wm. James, Agric. College, Ingham Co., Mich. (17). 1880. **G**
 Beardsley, Prof. Arthur, C.E., Ph.D., Swarthmore College, Swarthmore, Del. Co., Pa. (33). 1885. **D**
 Becker, Dr. Geo. F., U. S. Geol. Survey, Washington, D. C. (36). 1890. **E**
 Bedell, Frederick, Ph.D., Cornell University, Ithaca, N. Y. (41). 1894. **BA**

- Bell, Alex. Melville, 1525 35th St., Washington, D. C. (31). 1885. **H**
 Bell, Robert, M.D., LL.D., F.R.S., Geol. Survey, Ottawa, Can. (38).
 1889. **E F**
 Beman, Wooster W., 19 S. 5th St., Ann Arbor, Mich. (34). 1886. **A**
 BENJAMIN, MARCUS, Smithsonian Institution, Washington, D. C. (27).
 1887. **C**
 Benjamin, Rev. Raphael, M.A., Hotel Premier, E. 72nd St., New York,
 N. Y. (34). 1887. **E F G H**
 Benneson, Miss Cora Agnes, A.M., LL.B., 4 Mason St., Cambridge, Mass.
 (47). 1899. **I H**
 Bessey, Charles Edwin, Ph.D., LL.D., Univ. of Nebraska, Lincoln, Nebr.
 (21). 1880. **G**
 Bethune, Rev. C. J. S., 500 Dufferin Ave., London, Ontario, Can. (18).
 1875. **F**
 Bickmore, Prof. Albert S., Amer. Mus. Nat. History, Central Park, New
 York, N. Y. (17). 1880. **H**
 Bigelow, Prof. Frank H., U. S. Weather Bureau, Washington, D. C. (36).
 1888. **A**
 BIXBY, MAJOR W. H., Corps of Eng., U. S. Eng. Office, U. S. A., Cincin-
 nati, Ohio. (34). 1892. **D**
 Blair, Andrew A., 406 Locust St., Philadelphia, Pa. (44). 1896. **C**
 Blake, Clarence J., M.D., 226 Marlborough St., Boston, Mass. (24).
 1877. **B F**
 Blake, Francis, Auburndale, Mass. (23). 1874. **B A**
 Bleile, Albert M., M.D., State University, Columbus, Ohio (37). 1896.
F
 Blue, Archibald, Director of the Bureau of Mines, Toronto, Can. (35).
 1890. **I**
 Bodine, Prof. Donaldson, Wabash College, Crawfordsville, Ind. (45). 1899.
E F
 Bohannon, Prof. Rosser D., Ohio State Univ., Columbus, Ohio (46). 1898.
A
 Bolley, Henry L., Agricultural College, No. Dakota (39). 1892. **G**
 BOLTON, DR. H. CARRINGTON, Cosmos Club, Washington, D. C. (17).
 1875. **C**
 Bond, Geo. M., care of The Pratt & Whitney Co., Hartford, Conn. (33).
 1885. **D**
 Booth, Miss Mary A., 60 Dartmouth St., Springfield, Mass. 1894. (34).
F I G
 Bowditch, Charles P., 28 State St., Boston, Mass. (43). 1897. **H**
 Bowditch, Prof. H. P., Jamaica Plain, Mass. (28). 1880. **F B H**
 Bowser, Prof. E. A., Rutgers College, New Brunswick, N. J. (28). 1881.
 Boyd, James E., Ohio State Univ., Columbus, Ohio (46). 1899. **B**
 BOYÉ, MARTIN H., M.D., Coopersburg, Lehigh Co., Pa. (1). 1896. **C**
 Brackett, Richard N., Clemson College, S. C. (37). 1891. **C E**

- Bradford, Royal B., Commander U. S. N., care Navy Dep't, Washington, D. C. (31). 1891. **B D**
- Branner, Prof. John C., Stanford University, Cal. (34). 1886. **E F**
- Brashear, Jno. A., Allegheny, Pa. (33). 1885. **A B D**
- Brewer, Prof. Wm. H., 418 Orange St., New Haven, Conn. (20). 1875. **E F I**
- Bristol, Wm. H., Stevens Institute, Hoboken, N. J. (36). 1894. **A B D**
- Britton, N. L., Ph.D., N. Y. Botanical Garden, Bronx Park, New York, N. Y. (29). 1882. **G E**
- Brooks, Wm. R., D.Sc., Director Smith Observ., Geneva, N. Y. (35). 1886. **A B D G**
- Brown, Robert, care of Yale Univ. Observ., New Haven, Conn. (11). 1874. **A**
- Brown, Mrs. Robert, New Haven, Conn. (17). 1874.
- Brühl, Gustav, cor. John and Hopkins Sts., Cincinnati, Ohio. (28). 1886. **H**
- Brush, Charles F., The Arcade, Cleveland, Ohio. (35). 1886. **B**
- BRUSH, PROF. GEORGE J., Yale Univ., New Haven, Conn. (4). 1874. **C E**
- Buckhout, W. A., State College, Centre Co., Pa. (20). 1881. **F**
- Bull, Prof. Storm, Madison, Wis. (44). 1897. **D**
- Burgess, Dr. Thomas J. W., Med. Sup't Protestant Hospital for the Insane, Montreal, Can. (38). 1889. **G**
- Burr, Prof. William H., Columbia Univ., 117th St. and Boulevard, New York, N. Y. (31). 1883.
- Butler, A. W., Secretary Board of State Charities, Indianapolis, Ind. (30). 1885. **F H**
- Caldwell, Prof. Francis C., Ohio State University, Columbus, Ohio. (46). 1898. **B D**
- Caldwell, Prof. George C., Cornell University, Ithaca, N. Y. (23). 1875. **C**
- Calvin, Prof. Samuel, State Univ. of Iowa, Iowa City, Iowa (37). 1889. **E F**
- Campbell, Prof. Douglas H., Stanford University, Cal. (34). 1888. **G**
- Canby, William M., 1101 Delaware Avenue, Wilmington, Del. (17). 1878. **G**
- Carhart, Prof. Henry S., Univ. of Michigan, Ann Arbor, Mich. (29). 1881. **B**
- Carleton, M. A., U. S. Dep't Agric., Washington, D. C. (42). 1894. **G**
- Carpenter, Louis G., Agric. College, Fort Collins, Col. (32). 1889. **A B**
- Carter, James Madison G., M.D., Waukegan, Ill. (39). 1895. **F**
- Carus, Paul, Ph.D., La Salle, Ill. (40). 1895. **H**
- Casey, Thomas L., Major of Eng. U. S. A., U. S. Engineer Office, Vicksburg, Miss. (38). 1892. **F**
- Catlin, Charles A., 133 Hope St., Providence, R. I. (33). 1895. **C**
- CATTELL, PROF. JAMES MCKEEN, Columbia Univ., New York, N. Y. (44). 1896. **B F H I**

- Chamberlin, T. C., 5041 Madison Ave., Chicago, Ill. (21). 1877. **E B F H**
- Chandler, Prof. C. F., School of Mines, Columbia Univ., New York, N. Y. (19). 1875. **C**
- Chandler, Prof. Charles Henry, Ripon, Wis. (28). 1883. **A**
- Chandler, Seth C., 16 Craigie St., Cambridge, Mass. (29). 1882. **A**
- Chanute, O., 413 E. Huron St., Chicago, Ill. (17). 1877. **D I**
- Chase, Frederick L., Yale Univ. Observ., New Haven, Conn. (43). 1896. **A**
- Cheney, Lellen Sterling, 318 Bruen St., Madison, Wis. (42). 1894. **G**
- Chester, Prof. Albert H., Rutgers College, New Brunswick, N. J. (29). 1882. **C F**
- Chester, Captain Colby M., U. S. N., care Navy Dept., Washington, D. C. (28). 1897. **E**
- Chickering, Prof. J. W., The Portner, Washington, D. C. (22). 1877. **G I**
- Child, Clement D., Colgate Univ., Hamilton, N. Y. (44). 1899. **B**
- Christie, James, Pencoyd, Pa. (33). 1894. **D**
- Chute, Horatio N., Ann Arbor, Mich. (34). 1889. **B C A**
- Clapp, Miss Cornelia M., Mt. Holyoke College, South Hadley, Mass. (31). 1883. **F**
- Clark, Prof. John E., 445 Orange St., New Haven, Conn. (17). 1875. **A**
- Clark, Wm. Bullock, Ph.D., Johns Hopkins Univ., Baltimore, Md. (37). 1891. **E**
- Clarke, Prof. F. W., U. S. Geol. Survey, Washington, D. C. (18). 1874. **C**
- Clarke, John Mason, Ass't State Geologist and Palæontologist of N. Y., State Hall, Albany, N. Y. (45). 1897. **E**
- Claypole, Dr. Agnes M., Cornell Univ., Ithaca, N. Y. (46). 1899. **F**
- Claypole, Miss Edith J., Cornell Univ., Ithaca, N. Y. (46). 1899. **F**
- Claypole, Prof. Edward W., Polytechnic Institute, Pasadena, Cal. (30). 1882. **E F**
- Cloud, John W., 974 Rookery, Chicago, Ill. (28). 1886. **A B D**
- Cochran, C. B., 514 South High St., West Chester, Chester Co., Pa. (43). 1896. **C**
- Coffin, Selden J., Lafayette College, Easton, Pa. (22). 1874. **A I**
- Cogswell, Wm. B., Syracuse, N. Y. (33). 1891. **D**
- COLBURN, RICHARD T., Elizabeth, N. J. (31). 1894. **I F H**
- Cole, Prof. Alfred D., Denison Univ., Granville, Ohio (39). 1891. **B C**
- Collin, Prof. Alonzo, Cornell College, Mount Vernon, Iowa (21). 1891. **B C**
- Collingwood, Francis, Elizabeth, N. J. (36). 1888. **D**
- Comstock, Prof. Geo. C., Washburn Observ., Univ. of Wisconsin, Madison, Wis. (34). 1887. **A**
- Conant, Prof. L. L., Polytechnic Instit., Worcester, Mass. (39). 1892. **A**
- Cook, Prof. Orator F., U. S. National Museum, Washington, D. C. (40). 1892. **G**
- Cooley, Prof. Le Roy C., Vassar College, Poughkeepsie, N. Y. (19). 1880. **B C**
- Cooley, Prof. Mortimer E., Univ. of Mich., Ann Arbor, Mich. (33). 1885. **D**

Corthell, Elmer L., 27 Pine St., New York, N. Y. (34). 1886. **D I E**
 Cowles, Alfred H., 656 Prospect St., Cleveland, Ohio (37). 1897. **B C**
 Crafts, James Mason, Mass. Inst. Technology, Boston, Mass. (47). 1898.

C

Cragin, Francis W., 1715 Wood Ave., Colorado Springs, Colo. (29). 1890.

F E H

Crampton, Chas. A., M.D., Office of Internal Revenue, U. S. Treasury
 Dep't, Washington, D. C. (36). 1887). **C**

Crandall, Prof. Charles S., Fort Collins, Colo. (40). 1894.

Crawford, Prof. Morris B., Middletown, Conn. (30). 1889. **B**

Crockett, Prof. Charles W., Rensselaer Polytechnic Inst., Troy, N. Y.
 (39). 1894. **A D**

Cross, Prof. Charles R., Mass. Instit. Technology, Boston, Mass. (29).
 1880. **B**

Cultn, Stewart, Univ. of Pennsylvania, Philadelphia, Pa. (33). 1890. **H**

Cummings, Miss Clara E., Wellesley College, Wellesley, Mass (47). 1899.

G

Cushing, Henry Platt, Adelbert College, Cleveland, Ohio (33). 1888. **E**

Dall, William H., Smithsonian Institution, Washington, D. C. (18). 1874.

H F

Dana, Edward Salisbury, New Haven, Conn. (23). 1875. **B E**

Darton, Nelson H., U. S. Geol. Survey, Washington, D. C. (37). 1893.

Davenport, Charles Benedict, Ph.D., 11 Francis Ave., Cambridge, Mass.
 (46). 1898. **F**

Davidson, Prof. George, 2221 Washington St., San Francisco, Cal. (29).
 1881. **A B D**

Davis, Bradley Moore, Dep't of Botany, Univ. of Chicago, Chicago, Ill.
 (45). 1897. **G**

Davis, C. H., Commander U. S. N., U. S. Navy Dep't, Washington, D. C.
 (40). 1896.

Davis, J. J., M.D., 1119 College Ave., Racine, Wis. (31). 1899. **F G**

Davis, Prof. Wm. Morris, Cambridge, Mass. (33). 1885. **E B**

Dawson, Geo. M., SS.C., F.G.S., Geol. Survey, Ottawa, Can. (38). 1895.

E

Day, David F., Buffalo, N. Y. (35). 1887. **G**

Day, Fisk H., M.D., 309 Sycamore St., Lansing, Mich. (20). 1874. **E H F**

Dennis, Louis Monroe, Cornell University, Ithaca, N. Y. (43). 1895. **C**

Denton, Prof. James E., Stevens Institute, Hoboken, N. J. (36). 1888.

D B A

Derby, Orville, A., Sao Paulo, Brazil, S. A. (39). 1890.

Dewey, Frederic P., 702 9th St., N. W., Washington, D. C. (30). 1886.

C E

Dewey, L. H., U. S. Dep't Agric., Washington, D. C., (40). 1899. **F G**

Dimmock, George, 679 State St., Springfield, Mass. (22). 1874. **F**

Dodge, Charles R., U. S. Dep't Agric., Washington, D. C. (22). (1874).

- Dodge, Chas. Wright, Univ. of Rochester, Rochester, N. Y. (39). 1898. **F**
 Dolbear, Prof. A. Emerson, Tufts College, Mass. (20). 1880. **B**
 Doolittle, Prof. C. L., Univ. of Pennsylvania, Philadelphia, Pa. (25). 1885.

A

- Dorsey, George A., Ph.D., Field Columbian Museum, Chicago, Ill. (39). 1892. **H**
 Dofsey, N. Ernest, Ph.D., Annapolis Junction, Md. (46). 1898. **B**
 Douglass, Andrew E., Amer. Mus. of Nat. History, Central Park, New York, N. Y. (31). 1885. **H**
 DRAPER, DANIEL, Ph.D., N. Y. Meteorological Observatory, Central Park 64th St., Fifth Ave., New York, N. Y. (29). 1881. **B D F A**
 Drown, Prof. Thos. M., Lehigh Univ., South Bethlehem, Pa. (29). 1881. **C**
 Du Bois, PROF. AUG. J., New Haven, Conn. (30). 1882. **A B D**
 Du Bois, Patterson, 401 So. 40th St., Philadelphia, Pa. (33). 1887. **H C I**
 Dudley, Charles B., Drawer 334, Altoona, Pa. (23). 1882. **C B D**
 DUDLEY, WM. L., Vanderbilt University, Nashville, Tenn. (28). 1881. **C**
 Dudley, Prof. Wm. R., Stanford University, Cal. (29). 1883. **G**
 Dumble, E. T., 1708 Prairie Ave., Houston, Tex. (37). 1891. **E**
 Dunham, Edw. K., 338 E. 26th St., New York, N. Y. (30). 1890.
 Dunnington, Prof. F. P., University Station, Charlottesville, Va. (26). 1880. **C**
 Du Pont, Francis G., Wilmington, Del. (33). 1896. **A B D**
 Durand, Elias J., D.S., 402 Eddy St., Ithaca, N. Y. (41). 1899. **G**
 Durand, Prof. W. F., Ph.D., Cornell Univ., Ithaca, N. Y. (37). 1890. **B**
 Durfee, William P., Ph.D., 639 Main St., Geneva, N. Y. (46). 1899. **A**
 Dwight, Prof. William B., Vassar College, Poughkeepsie, N. Y. (30). 1882. **E F**
 Dyar, Harrison G., A.M., Ph.D., U. S. National Museum, Washington, D. C. (43). 1898.
 Earle, F. S., Polytechnic Inst., Auburn, Ala. (39). 1896. **G**
 Eastman, Charles Rochester, Mus. Comp. Zoology, Cambridge, Mass. (41). 1896. **E F**
 Eastman, Prof. J. R., Andover, N. H. (26). 1879. **A**
 Eccles, Robert G., M.D., 191 Dean St., Brooklyn, N. Y. (31). 1894. **F C**
 Eddy, Prof. H. T., Univ. of Minnesota, Minneapolis, Minn. (24). 1875. **A B D**
 Edison, Thos. A., Orange, N. J. (27). 1878. **B**
 Egleston, Prof. Thomas, 35 W. Washington Square, New York, N. Y. (27) 1879. **C D E**
 Eichelberger, William Snyder, Ph.D., Nautical Almanac Office, U.S. Naval Observatory, Washington, D. C. (41). 1896. **A**
 Eigenmann, Carl H., Bloomington, Ind. (48). 1899. **F**
 Eimbeck, William, U. S. C. and G. Survey, Washington, D. C. (17). 1874. **A B D**
 Elkin, William L., Yale Univ. Observ., New Haven, Conn. (33). 1885. **A**

- Ely, Theo. N., Chief of Motive Power, Pennsylvania R. R., Broad St. Station, Philadelphia, Pa. (29). 1886.
- Emerson, Prof. Benjamin K., Box 203, Amherst, Mass. (19). 1877. **EF**
- EMERSON, PROF. C. F., Box 499, Hanover, N. H. (22). 1874. **BA**
- Emery, Albert H., Stamford, Conn. (29). 1884. **DB**
- EMMONS, S. F., U. S. Geol. Survey, Washington, D. C. (26). 1879. **E**
- Engelman, George J., M.D., 336 Beacon St., Boston, Mass. (25). 1875. **FH**
- Ewell, Ervin E., 1804 S St., Washington, D. C. (40). 1896. **C**
- Eyerman, John, "Oakhurst," Easton, Pa. (33). 1889. **EC**
- Fairbanks, Henry, Ph.D., St. Johnsbury, Vt. (14). 1874. **BDA**
- Fairchild, David Grandison, U. S. Dep't Agric., Washington, D. C. (47). 1898. **G**
- Fairchild, Prof. H. L., Univ. of Rochester, Rochester, N. Y. (28). 1883. **EF**
- Fanning, John T., Consulting Engineer, Kasota Block, Minneapolis Minn. (29). 1885. **D**
- Fargis, Rev. Geo. A., S.J., Boston College, 761 Harrison Ave., Boston, Mass. (40). 1892.
- Farlow, Dr. W. G., 24 Quincy St., Cambridge, Mass. (20). 1875. **G**
- Farquhar, Henry, U. S. Dep't Agric., Washington, D. C. (33). 1886. **AIGB**
- Fassig, Oliver Lanard, Johns Hopkins Univ., Baltimore, Md. (46). 1899. **B**
- Felt, Dr. Ephraim Porter, State Entomologist, Albany, N. Y. (44). 1899. **F**
- Fernow, Bernhard, E., Director N. Y. S. Coll. of Forestry, Cornell Univ., Ithaca, N. Y. (31). 1887. **GI**
- Ferry, Ervin S., University of Wisconsin, Madison, Wis. (41). 1896.
- Firmstone, F., Easton, Pa. (33). 1887. **D**
- Fitz, George W., M.D., 483 Beacon St., Boston, Mass. (47). 1898. **H**
- Flather, Prof. John J., 316 Tenth Ave., S. E., Minneapolis, Minn. (44). 1896. **D**
- Fletcher, Miss Alice B., care Peabody Museum, Cambridge, Mass. (29). 1883. **H**
- Fletcher, James, Dominion Entomologist, Experimental Farm, Ottawa, Can. (31). 1883. **F**
- Fletcher, Dr. Robert, Army Medical Museum, Washington, D. C. (29). 1881. **FH**
- Flint, Albert S., Washburn Observatory, Madison, Wis. (30). 1887. **A**
- Flint, James M., Surgeon U. S. N., The Portland, Washington, D. C. (28). 1882. **F**
- Ford, Prof. D. R., Elmira, N. Y. (41). 1894. **AB**
- Fox, Oscar C., U. S. Patent Office, Washington, D. C. (36). 1891. **BDA**
- Franklin, Mrs. C. Ladd, 1507 Park Ave., Baltimore, Md. (47). 1899. **H**

- Franklin, William S., Lehigh University, So. Bethlehem, Pa. (36). 1892. **B**
FRAZER, DR. PERSIFOR, Drexel Building, Room 1042, Philadelphia, Pa. (24). 1879. **E C**
Frazier, Prof. B. W., The Lehigh University, So. Bethlehem, Pa. (24). 1882. **E C**
Frear, William, State College, Center Co., Pa. (33). 1886. **C**
Freer, Prof. Paul C., Ann Arbor, Mich. (39). 1891. **C**
French, Prof. Thomas, Jr., Ridgeway Ave., Avondale, Cincinnati, Ohio (30). 1883. **B**
Fries, Dr. Harold H., 92 Reade St., New York, N. Y. (40). 1898. **C**
Frisby, Prof. Edgar, U. S. Naval Observatory, Washington, D. C. (28). 1880. **A**
Frost, Edwin Brant, Yerkes Observatory, Williams Bay, Wis. (38). 1890. **A B**
Fuller, Prof. Homer T., President Drury College, Springfield, Mo. (35). 1891. **C E**
Fulton, Robert B., Chancellor Univ. of Mississippi, University, Miss. (21). 1887. **B A**
Furness, Miss Caroline E., Vassar Coll. Observ., Poughkeepsie, N. Y. (47). 1899. **A**
Gaffield, Thomas, 54 Allen St., Boston, Mass. (29). 1889. **C B**
Gage, Prof. Simon Henry, Ithaca, N. Y. (28). 1881. **F**
Galbraith, Prof. John, Toronto, Can. (38). 1889. **D**
Gibbs, Prof. J. Willard, New Haven, Conn. (33). 1885. **B**
GILBERT, G. K., U. S. Geol. Survey, Washington, D. C. (18). 1874. **E**
Gill, Adam Capen, Cornell University, Ithaca, N. Y. (38). 1894. **E**
Gill, Augustus Herman, Mass. Institute Technology, Boston, Mass. (44). 1896. **C**
Gill, Prof. Theo., Columbian University, Washington, D. C. (17). 1874. **F**
Gillman, Henry, 107 Fort St. West, Detroit, Mich. (24). 1875. **H F G**
Gilman, Daniel C., President Johns Hopkins Univ., Baltimore, Md. (10). 1875. **E H**
Glenn, William, 1348 Block St., Baltimore, Md. (33). 1893. **C**
Goessman, Prof. C. A., Mass. Agric. Coll., Amherst, Mass. (18). 1875. **C**
Goff, E. S., 1113 University Ave., Madison, Wis. (35). 1889.
Gold, Theodore S., West Cornwall, Conn. (4). 1887. **B C**
Golden, Miss Katherine E., Purdue Univ., Lafayette, Ind. (42). 1897. **G**
Goldschmidt, S. A., Ph.D., 43 Sedgwick St., Brooklyn, N. Y. (24). 1880. **C E B**
Goldsmith, Edw., 658 N. 10th St., Philadelphia, Pa. (29). 1892. **C B**
Gooch, Frank A., Yale University, New Haven, Conn. (25). 1880. **C**
Goodale, Prof. G. L., Botanic Gardens, Cambridge, Mass. (18). 1875. **G**
Goodspeed, Arthur Willis, A.B., Ph.D., Dep't Physics, Univ. of Pennsylvania, Philadelphia, Pa. (47). 1898. **A B**
Goss, Prof. Wm. F. M., Lafayette, Ind. (39). 1896.

GRANT, MRS. MARY J., 36 Division St., Danbury, Conn. (23). 1874. A
Gratacap, L. P., Ph.B., 77th St. and 8th Ave., New York, N. Y. (27). 1884.

C E F

Gray, Prof. Thomas, Terre Haute, Ind. (38). 1889. D
Green, Arthur L., Purdue University, Lafayette, Ind. (33). 1888. C
Greenman, Jesse M., 875 Doan St., Cleveland, Ohio (47). 1899. G
Grimes, Prof. James Stanley, 1422 Wesley Ave., Evanston, Cook Co., Ill.
(17). 1874. E H

Grindley, Harry Sands, 918 W. Green St., Urbana, Ill. (46). 1898. C
Grinnell, George Bird, 346 Broadway, New York, N. Y. (25). 1885. F E
Griswold, Leon Stacy, 238 Boston St., Dorchester, Mass. (38). 1893. E
Grout, Abel J., Boys High School, Brooklyn, N. Y. (47). 1899. G
Gruener, Hippolyte, Adelbert College, Cleveland, Ohio (44). 1898.
Gunkel, Lewis W., 435 W. Second St., Dayton, Ohio (41). 1897. C
Guthe, Karl E., Ph.D., 904 S. State St., Ann Arbor, Mich. (45). 1897. B D
Hagar, Stansbury, 31 Nassau St., New York, N. Y. (43). 1899.
Hague, Arnold, U. S. Geol. Survey, Washington, D. C. (26). 1879. E
Haines, Reuben, Haines and Chew Sts., Germantown, Philadelphia, Pa.
(27). 1889. C B

Hale, Albert C., Ph.D., 551 Putnam Ave., Brooklyn, N. Y. (29). 1886. C B
Hale, Geo. E., Yerkes Observatory, Williams Bay, Wis. (37). 1891. A B C
Hale, William H., Ph.D., 40 First Place, Brooklyn, N. Y. (19). 1874.

I F H C B E A

Haliburton, R. G., Q. C., 143 John St., Toronto, Can. (43). 1895.
Hall, Arthur G., 1036 Oakland Ave., Ann Arbor, Mich. (41). 1896. A B
Hall, Prof. Asaph, 12 Kirkland Place, Cambridge, Mass. (25). 1877. A
Hall, Asaph, Jr., University of Michigan, Ann Arbor, Mich. (38). 1890. A
Hall, Prof. C. W., Dean College Engineering Met. and Mechan. Arts,
University of Minnesota, Minneapolis, Minn. (28). 1883. D E
Hall, Prof. Edwin H., 5 Avon St., Cambridge, Mass. (29). 1881. B
Hall, Prof. Lyman B., Haverford College, Haverford, Pa. (31). 1884. C
Hallock, Albert P., Ph.D., 440 First Ave., New York, N. Y. (31). 1896. C
Hallock, Dr. William, Columbia Univ., New York, N. Y. (40). 1893. B E
Hallowell, Prof. Susan M., Wellesley College, Wellesley, Mass. (33).
1890. G

Halsted, Byron D., Rutgers Coll., New Brunswick, N. J. (29). 1883. G
Halsted, Prof. George Bruce, Austin, Texas (43). 1896.

Hambach, Dr. G., 1319 Lami St., St. Louis, Mo. (26). 1891. E F

Hamlin, Dr. A. C., Bangor, Me. (10). 1874. C E H

HANAMAN, C. E., Troy, N. Y. (19). 1883. F

Hargitt, Prof. Charles W., Syracuse Univ., Syracuse, N. Y. (38). 1891. F
HARKNESS, PROF. WILLIAM, U. S. N. Observatory, Washington, D. C.
(26). 1878. A B C D

Harper, Charles A., Ph.D., 2139 Gilbert Ave., Cincinnati, Ohio (40).
1899. C

- Harper, Henry Winston, M.D., The Univ. of Texas, Austin, Texas (45). 1899. **C**
- Harris, Abram Winegardner, Sc.D., President Univ. of Maine, Orono, Me. (40). 1895. **C**
- Harris, Prof. E. P., Amherst College, Amherst, Mass. (44). 1896.
- Harris, Rollin Arthur, U. S. C. and G. Survey, Washington, D. C. (47). 1899. **A B**
- Harris, Uriah R., Lieutenant Com'dr, U. S. N., care U. S. Navy Dep't, Washington, D. C. (34). 1886. **A**
- Hart, Edw., Ph.D., Lafayette College, Easton, Pa. (33). 1885. **C**
- Haskell, Eugene E., Jones Building, Detroit, Mich. (39). 1896. **A B D**
- HASTINGS, C. S., Sheffield Scientific School of Yale Univ., New Haven, Conn. (25). 1878. **B**
- Hayford, John F., C.E., U. S. C. and G. Survey, Washington, D. C. (46). 1898. **A B D**
- Haynes, Prof. Henry W., 239 Beacon St., Boston, Mass. (28). 1884. **H**
- Hedrick, Henry B., A.B., Nautical Almanac Office, U. S. Naval Observ., Washington, D. C. (40). 1896. **A**
- Hering, Rudolph, 100 William St., New York, N. Y. (33). 1885. **D E I**
- Herty, Chas. Holmes, Ph.D., Univ. of Georgia, Athens, Ga. (42). 1895. **C**
- Hervey, Rev. A. B., Bath, Me. (22). 1879. **F**
- Hilgard, Prof. E. W., Univ. of California, Berkeley, Cal. (11). 1874. **C E B**
- Hill, John Edward, Brown Univ., Providence, R. I. (44). 1897. **D**
- Hill, Robert Thomas, U. S. Geol. Survey, Washington, D. C. (36). 1889. **E**
- Hillyer, Homer W., Ph.D., Chemical Laboratory, Univ. of Wisconsin, Madison, Wis. (42). 1896. **C**
- Himes, Prof. Charles F., Carlisle, Pa. (29). 1882. **B C**
- Hinrichs, Dr. Gustavus, 3132 Lafayette Ave., St. Louis, Mo. (17). 1874. **C B**
- Hitchcock, Albert Spear, Manhattan, Kan. (39). 1892. **G**
- HITCHCOCK, PROF. CHARLES H., Hanover, N. H. (11). 1874. **E**
- Hitchcock, Romyn, Room 1804, 20 Broad St., New York, N. Y. (47). 1898. **C B**
- Hobbs, William Herbert, Ph.D., Madison, Wis. (41). 1893. **E**
- Hodgkins, Prof. H. L., Columbian Univ., Washington, D. C. (40). 1896. **A B**
- HOFFMANN, DR. FRIEDRICH, Charlottenburg, Kant St. 125, Berlin, Germany (28). 1881. **C F**
- Holland, W. J., D.D., LL.D., Chancellor Western Univ. of Pennsylvania, Pittsburg, Pa. (37). 1896. **F**
- Hollick, Arthur, Columbia University, New York, N. Y. (31). 1892. **G E**
- Holmes, Prof. Jos. A., Chapel Hill, N. C. (33). 1887. **E F**
- Holmes, Wm. H., U. S. Nat'l Museum, Washington, D. C. (30). 1883. **H**
- Hopkins, A. D., Experiment Station, Morgantown, W. Va. (42). 1899. **F**
- Hopkins, Thos. C., State College, Center Co., Pa. (38). 1898. **E**
- Horsford, Miss Cornelia, 27 Craigie St., Cambridge, Mass. (46). 1897. **H**

- Hough, Prof. G. W., Northwestern Univ., Evanston, Ill. (15). 1874. **A**
 Hough, Walter, U. S. National Museum, Washington, D. C. (38). 1890.
 Hovey, Edmund O., Amer. Mus. Nat. History, Central Park, New York, N. Y. (36). 1895. **C E**
 Hovey, Rev. Horace C., 60 High St., Newburyport, Mass. (29). 1883. **E H**
 Howard, Prof. Curtis C., 97 Jefferson Ave., Columbus, Ohio. (38). 1892. **C**
 Howard, Leland O., U. S. Dep't Agric., Washington, D. C. (37). 1889. **F**
 Howe, Charles S., Case School of Applied Science, Cleveland, Ohio. (34). 1891. **A**
 Howe, Prof. Jas. Lewis, Washington and Lee University, Lexington, Va. (36). 1888. **C**
 Howell, Edwin E., 612 17th St., N. W., Washington, D. C. (25). 1891. **E**
 Hrdlicka, Alēs, M.D., 130 E. 93d St., New York, N. Y. (46). 1897. **H**
 Hulst, Rev. Geo. D., 15 Himrod St., Brooklyn, N. Y. (29). 1887. **F**
 Hunter, Andrew Frederick, Barrie, Ontario, Can. (38). 1896. **B H I**
 Hunter, Prof. Joseph Rufus, Richmond College, Richmond, Va. (45). 1899. **C**
 Hyatt, Prof. Alpheus, Natural History Society, Boston, Mass. (18). 1875. **E F**
 Hyde, Prof. E. W., Station D, Cincinnati, Ohio. (25). 1881. **A**
 Hyde, John, Statistician U. S. Dep't Agric., Washington, D. C. (47). 1898. **I E**
 Iddings, Joseph P., University of Chicago, Chicago, Ill. (31). 1884. **E**
 ILES, GEORGE, 5 Brunswick St., Montreal, Can. (31). (1898). **I**
 Ives, Frederick E., 2750 N. 11th St., Philadelphia, Pa. (44). 1898. **B**
 Jack, John G., Jamaica Plain, Mass. (31). 1890. **G**
 Jackson, Prof. Charles L., Harvard Univ., Cambridge, Mass. (44). 1895. **C**
 Jackson, Dr. Robert T., 33 Gloucester St., Boston, Mass. (37). 1890. **F**
 Jacobus, David S., Stevens Institute, Hoboken, N. J. (36). 1889. **D B A**
 Jacoby, Harold, Columbia University, New York, N. Y. (38). 1891. **A**
 Jacoby, Henry S., Prof. of Bridge Eng. and Graphics, Cornell University, Ithaca, N. Y. (36). 1892. **D**
 Jaques, Capt. William H., Little Boarshead, N. H. (47). 1899. **D**
 Jastrow, Dr. Jos., University of Wisconsin, Madison, Wis. (35). 1887. **H F**
 Jayne, Horace F., 1826 Chestnut St., Philadelphia, Pa. (29). 1884. **F H**
 Jeffries, B. Joy, M.D., 15 Chestnut St., Boston, Mass. (29). 1881. **F H**
 Jenkins, Edw. H., Drawer 101, New Haven, Conn. (33). 1885. **C**
 Jenks, Elisha T., Middleboro, Mass. (22). 1874. **D**
 Jennings, Walter L., 900 Beacon St., Boston, Mass. (45). 1898.
 Jesup, Prof. Henry G., Dartmouth Coll., Hanover, N. H. (36). 1891. **F**
 Jesup, Morris K., 44 Pine St., New York. N. Y. (29). 1891. **I**
 Jewett, Prof. Frank Fanning, Oberlin College, Oberlin, Ohio (47). 1899. **C**
 Johnson, John B., Washington University, St. Louis, Mo. (33). 1886. **D**
 Johnson, Otis C., 730 Thayer St., Ann Arbor, Mich. (34). 1886. **C**

- Jones, Lewis R., Burlington, Vt. (41). 1894. **G**
 Jones, Prof. Marcus E., Salt Lake City, Utah (40). 1893. **G**
 Jordan, Prof. David S., Stanford University, Cal. (31). 1883. **F**
 Julien, Alexis A., N. Y. Academy of Sciences, New York, N. Y. (24).
 1875. **E C**
 Kahlenberg, Louis, Ph.D., 306 Lake St., Madison, Wis. (46). 1898. **C**
 Kastle, Prof. J. H., State College of Kentucky, Lexington, Ky. (45).
 1898. **C**
 Kedzie, Prof. Nellie S., Peoria, Ill. (34). 1890. **I F**
 Kedzie, Prof. Robert C., Agricultural College, Mich. (29). 1881. **C**
 Keeler, Prof. James E., Lick Observatory, Mt. Hamilton, via San José,
 Cal. (47). 1899. **A**
 Keep, Wm. J., Detroit, Mich. (37). 1897.
 Kellerman, Prof. William A., Ohio State Univ., Columbus, Ohio (41).
 1893. **G**
 Kemp, James F., School of Mines, Columbia Univ., New York, N. Y.
 (36). 1888. **E**
 Kendrick, Prof. Arthur, Rose Polytechnic Inst., Terre Haute, Ind. (45).
 1897. **B**
 Kent, William, Passaic, N. J. (26). 1881. **D I**
 Kenyon, Frederick C., U. S. Dep't Agric., Washington, D. C. (46). 1897. **F**
 Kershner, Prof. Jefferson E., Lancaster City, Pa. (29). 1883. **A B**
 Kinealy, John H., Washington University, St. Louis, Mo. (36). 1891. **D**
 King, F. H., Experiment Station, Madison, Wis. (32). 1892. **E F**
 Kingsbury, Albert, Prof. of Applied Mechanics, Worcester Polytechnic
 Inst., Worcester, Mass. (43). 1898. **D**
 Kingsbury, Benj. F., Ithaca, N. Y. (45). 1899. **F**
 Kinnicutt, Dr. Leonard P., Polytechnic Inst., Worcester, Mass. (28).
 1883. **C**
 Klotz, Otto Julius, 437 Albert St., Ottawa, Can. (38). 1889.
 Kober, Geo. Martin, M.D., 1819 Q St., N. W., Washington, D. C. (40).
 1896. **H**
 Kofoed, Charles Atwood, Univ. of Illinois, Urbana, Ill. (48). 1899. **F**
 Kunz, G. F., Care Messrs. Tiffany & Co., Union Square, New York, N. Y.
 (29). 1883. **E H C**
 Lacoe, Ralph D., 35 Exeter St., Pittston, Pa. (31). 1893. **E F**
 Ladd, Prof. E. F., Agricultural College, Fargo, No. Dakota (36). 1889. **C**
 Laflamme, Prof. J. C. K., Laval University, Quebec, Can. (29). 1887. **E B**
 LaFlesche, Francis, Indian Bureau, Interior Dep't, Washington, D. C.
 (33). 1885. **H**
 Lamb, Daniel S., M.D., 800 10th St., N. W., Washington, D. C. (40).
 1894. **H**
 Lambert, Preston A., 215 S. Center St., Bethlehem, Pa. (41). 1896. **A**
 Landreth, Olin H., Union College, Schenectady, N. Y. (28). 1883. **D**
 Langenbeck, Karl, 27 Orchard St., Zanesville, Ohio (39). 1896. **C**

- Langley, Prof. S. P., Smithsonian Institution, Washington, D. C. (18). 1874. **A B**
- Lanza, Prof. Gaetano, Mass. Institute Technology, Boston, Mass. (29). 1882. **D A B**
- Lattimore, Prof. S. A., Univ. of Rochester, Rochester, N. Y. (15). 1874. **C**
- Laudy, Louis H., Ph.D., School Mines, Columbia Univ., New York, N. Y. (28). 1890. **C**
- Lazenby, Prof. Wm. R., Columbus, Ohio (30). 1882. **B I**
- Leach, Miss Mary F., Mt. Holyoke College, South Hadley, Mass. (44). 1896. **C**
- Le Brun, Mrs. Michel M., 8 Mountain Ave. So., Montclair, N. J. (35). 1892. **F**
- LeConte, Prof. Joseph, Univ. of California, Berkeley, Cal. (29). 1881. **E F**
- Ledoux, Albert R., Ph.D., 9 Cliff St., New York, N. Y. (26). 1881. **C**
- Lefavour, Prof. Henry, Williams Coll., Williamstown, Mass. (42). 1894.
- Lehmann, G. W., Ph.D., 412 E. Lombard St., Baltimore, Md. (30). 1885. **C B**
- Lennon, William H., Brockport, N. Y. (31). 1894. **G C**
- Lesley, Prof. J. Peter, P. O. Box 93, Milton, Mass. (2). 1874. **E**
- Leverett, Frank, Denmark, Iowa (37). 1891. **E**
- Libbey, Prof. William, Princeton, N. J. (29). 1887. **E F**
- Linden Kohl, Adolphus, U. S. C. and G. Survey, Washington, D. C. (40). 1898. **E**
- Lindenthal, Gustav., C.E., 45 Cedar St., New York, N. Y. (37). 1891. **I**
- Lloyd, John Uri, Court and Plum Sts., Cincinnati, Ohio (38). 1890. **C F**
- Loeb, Morris, Ph.D., 119 W. 72d St., New York, N. Y. (36). 1889. **C**
- Long, Prof. John H., 2421 Dearborn St., Chicago, Ill. (41). 1895. **C**
- Lord, Prof. Nat. W., State University, Columbus, Ohio (29). 1881. **C**
- LOUBAT, LE DUC DE, 47 rue Dumont d'Urville, Paris, France (46). 1897. **H**
- Loud, Prof. Frank H., 1203 N. Tejon St., Colorado Springs, Colo. (29). 1890. **A B**
- Loughbridge, Dr. R. H., Univ. of California, Berkeley, Cal. (21). 1874. **E C**
- Love, Edward G., 80 E. 55th St., New York, N. Y. (24). 1882. **C**
- Low, Seth, President Columbia University, New York, N. Y. (29). 1890.
- Lowell, Augustus, 53 State St., Boston, Mass. (29). 1898.
- Lowell, Percival, 53 State St., Boston, Mass. (36). 1896. **A**
- Ludlow, Lt. Col. William, Corps of Eng. U. S. A., Army Building, New York, N. Y. (33). 1897. **D B**
- Lyford, Edwin F., Springfield, Mass. (33). 1896. **B C H**
- Lyle, Major David A., Ord. Dep't, U. S. A., Ordnance Office, War Dep't, Washington, D. C. (28). 1880. **D**
- Lyon, Dr. Henry, 34 Monument Sq., Charlestown, Mass. (18). 1874.
- McClintock, Emory, Morristown, N. J. (43). 1895. **A**
- McCreath, Andrew S., 223 Market St., Harrisburg, Pa. (33). 1889. **C E**

- McCurdy, Chas. W., Ph.D., Univ. of Idaho, Moscow, Idaho (35). 1895.
F E
- McDonnell, Prof. Henry B., College Park, Md. (40). 1893. **C**
- MacDougal, Daniel T., N. Y. Botanical Garden, Bronx Park, New York,
N. Y. (44). 1897. **G**
- McGee, Dr. Anita Newcomb, Bureau Amer. Ethnology, Washington, D. C.
(37). 1892. **H**
- McGee, W J, Bureau Amer. Ethnology, Washington, D. C. (27). 1882.
H E
- McGill, John T., Ph.D., Vanderbilt Univ., Nashville, Tenn. (36). 1888. **C**
- McGregory, Prof. J. F., Colgate Univ., Hamilton, N. Y. (35). 1892. **C**
- McMahon, James, Ithaca, N. Y. (36). 1891. **A**
- McMurtrie, William, 100 William St., New York, N. Y. (22). 1874. **C**
- McNeill, Malcolm, Lake Forest, Ill. (32). 1885. **A**
- McPherson, Prof. William, Ohio State Univ., Columbus, Ohio (45).
1898. **C**
- Mabery, Prof. C. F., Case School of Applied Science, Cleveland, Ohio
(29). 1881. **C**
- Macbride, Prof. Thomas H., Iowa City, Iowa (38). 1890. **G**
- Macfarlane, Prof. A., Lehigh Univ., S. Bethlehem, Pa. (34). 1886. **B A**
- Macloskie, Prof. George, Princeton Univ., Princeton, N. J. (25). 1882.
F G
- Magie, Prof. William Francis, Princeton University, Princeton, N. J. (35).
1887.
- Magruder, Wm. T., Ohio State Univ., Columbus, Ohio (37). 1899.
- Maltby, Margaret E., Ph.D., 32 Eliot St., Jamaica Plain, Mass. (46). 1898.
- MANN, B. PICKMAN, 1918 Sunderland Place, Washington, D. C. (22).
1874. **I F**
- Marindin, Henry Louis, U. S. C. and G. Survey, Washington, D. C. (40).
1898. **E**
- Mark, Prof. E. H., Louisville, Ky. (39). 1893. **B**
- Marlatt, Charles L., U. S. Dep't Agric., Washington, D. C. (40). 1895. **F**
- Marsh, Prof. C. Dwight, Ripon, Wis. (34). 1893. **F E**
- Martin, Artemas, U. S. Coast Survey, Washington, D. C. (38). 1890. **A**
- Martin, Prof. Daniel S., 126 Macon St., Brooklyn, N. Y. (23). 1879.
E F
- Marvin, C. F., U. S. Weather Bureau, Washington, D. C. (39). 1892. **B**
- Marvin, Frank O., University of Kansas, Lawrence, Kan. (35). 1894. **D**
- Mason, Prof. Otis T., U. S. National Museum, Washington, D. C. (25).
1877. **H**
- Mason, Dr. William P., Rensselaer Polytechnic Inst. Troy, N. Y. (31).
1886. **C**
- Matthews, Dr. Washington, 1262 N. H. Ave., Washington, D. C. (37).
1888. **H**
- Meehan, Thomas, Germantown, Pa. (17). 1875. **G**

- Mees, Prof. Carl Leo, Rose Polytechnic Inst., Terre Haute, Ind. (24). 1876. **B C**
- Mell, Prof. P. H., Polytechnic Institute, Auburn, Ala. (39). 1895. **E G**
- Mendenhall, Prof. T. C., President Worcester Polytechnic Inst., Worcester, Mass. (20). 1874. **B**
- Mercer, H. C., Doylestown, Bucks Co., Pa. (41). 1893. **H**
- MERRILL, FREDERICK J. H., Ph.D., N. Y. State Museum, Albany, N. Y. (35). 1887. **E**
- Merriman, C. C., 1910 Surf St., Lake View, Chicago, Ill. (29). 1880. **F**
- Merriman, Mansfield, Lehigh Univ., South Bethlehem, Pa. (32). 1885. **A D I**
- Merritt, Ernest, Ithaca, N. Y. (33). 1890. **B**
- Metcalf, William, Pittsburg, Pa. (33). 1894. **D**
- Metzler, William H., Ph.D., Syracuse University, Syracuse, N. Y. (45). 1899. **A**
- Michael, Mrs. Helen Abbott, 44 Mt. Vernon St., Boston, Mass. (33). 1885. **C F**
- Michelson, Prof. A. A., Chicago Univ., Chicago, Ill. (26). 1879. **B**
- Miller, Prof. Arthur M., State College, Lexington, Ky. (45). 1898. **E**
- Miller, Prof. Dayton C., Case School of Applied Science, Cleveland, Ohio (44). 1898. **B**
- Miller, George A., 115 Cook St., Ithaca, N. Y. (46). 1898. **A**
- Miller, Prof. William S., Univ. of Wisconsin, Madison, Wis. (42). 1894. **F**
- Mills, Prof. Wesley, McGill Univ., Montreal, Can. (31). 1886. **F H**
- Minot, Dr. Charles Sedgwick, Harvard Medical School, Boston, Mass. (28). 1880. **F**
- Mohr, Dr. Charles, Mobile, Ala. (40). 1895. **G**
- Moler, Geo. S., 106 University Ave., Ithaca, N. Y. (38). 1892.
- Moody, Robert O., M.D., Fair Haven Heights, New Haven, Conn. (35). 1892. **F**
- Moore, Burton E., Lincoln, Nebr. (41). 1899. **B**
- Moore, Clarence B., 1321 Locust St., Philadelphia, Pa. (44). 1897. **H**
- Moore, Prof. J. W., M.D., Lafayette College, Easton, Pa. (22). 1874. **B D A**
- Moore, Prof. Willis L., Weather Bureau, U. S. Dep't Agric., Washington, D. C. (44). 1897. **B**
- Moorehead, Warren K., Xenia, Ohio (38). 1890. **H**
- Moreland, Prof. S. T., Lexington, Va. (33). 1894. **B D**
- Morley, Prof. Edward W., Adelbert Coll., Cleveland, Ohio (18). 1876. **C B E**
- Morse, Prof. E. S., Salem, Mass. (18). 1874. **F H**
- Morton, H., Stevens Inst. Technology, Hoboken, N. J. (18). 1875. **B C**
- Moser, Lieut. Comd'r Jeff. F., U. S. N., Com'dg U. S. F. S. Str. Albacross, Navy Pay Office, San Francisco, Cal. (28). 1889. **E**
- Moses, Dr. Thomas F., Worcester Lane, Waltham, Mass. (25). 1883. **H F**

- Mulliken, Samuel P., Mass. Inst. Technology, Boston, Mass. (43). 1899.
 MUNROE, PROF. C. E., Columbian Univ., Washington, D. C. (22). 1874. C
 Munson, Prof. Welton M., The Univ. of Maine, Orono, Me. (41). 1899.

G F

- Munsterberg, Hugo, Harvard University, Cambridge, Mass. (47). 1898.
 Murdoch, John, Public Library, Boston, Mass. (29). 1886. F H
 Murray, Dan'l A., Ph.D., Cornell University, Ithaca, N. Y. (47). 1899. A
 Myers, Prof. G. W., Univ. of Illinois, Urbana, Ill. (46). 1899. A
 Myers, John A., Rooms 124 and 125, Anderson Building, 12-16 John St.,
 New York, N. Y. (30). 1889. C
 Myers, William S., M.Sc., F.C.S., Rutgers College, New Brunswick,
 N. J. (43). 1898. C
 Nagle, Prof. James C., A. and M. College, College Station, Texas (40).
 1893. D B
 Nardroff, Ernest R. von, 360^a Tompkins Ave., Brooklyn, N. Y. (44). 1896.

B

- Needham, James G., Lake Forest Coll., Lake Forest, Ill. (45). 1898. F
 Nef, J. U., University of Chicago, Chicago, Ill. (39). 1891. C
 Nelson, Prof. A. B., Centre College, Danville, Ky. (30). 1882. A B D
 Newcomb, Harry T., Census Bureau, Washington, D. C. (47). 1898.
 Newcomb, Prof. S., U. S. Navy Dep't, Washington, D. C. (13). 1874. A B
 Newcombe, Frederick Chas., 1021 E. University Ave., Ann Arbor, Mich.
 (43). 1896. G
 Newell, F. H., National Geographic Society, Washington, D. C. (40).
 1893.
 Newell, William Wells, Editor Journal American Folk Lore, Cambridge,
 Mass. (41). 1893. H
 Nichols, Ernest Fox, Hamilton, N. Y. (41). 1893. B
 Nichols, E. L., Ph.D., Cornell University, Ithaca, N. Y. (28). 1881. B C
 Niles, Prof. Wm. H., 10 Linden St., Cambridge, Mass. (16). 1874. E
 Nipher, Prof. F. E., Washington Univ., St. Louis, Mo. (24). 1876. B
 Nolan, Edw. J., M.D., Acad. Nat. Sciences, Philadelphia, Pa. (29). 1890. F
 Norton, J. B. S., 4159 McKee Ave., St. Louis, Mo. (47). 1899. G
 NORTON, PROF. THOMAS H., Univ. of Cincinnati, Cincinnati, Ohio (35).
 1887. C
 Novy, Dr. Frederick G., Univ. of Michigan, Ann Arbor, Mich. (36). 1889.
 C
 Noyes, Prof. Arthur A., Mass. Inst. Technology, Boston, Mass. (45).
 1897. C
 Noyes, Miss Mary C., Ph.D., Lake Erie College, Painesville, Ohio (43).
 1896. B
 Noyes, Prof. Wm. A., Rose Polytechnic Inst., Terre Haute, Ind. (32).
 1885. C
 Nuttall, Mrs. Zelia, care Messrs. Bassenge & Co., Bankers, Pragerstrasse,
 Dresden, Germany (35). 1887. H

Nutting, Prof. Charles C., State Univ. of Iowa, Iowa City, Iowa (40). 1892. **F**

Oberholser, Harry Church, Div. Biological Survey, U. S. Dep't Agric., Washington, D. C. (46). 1898. **F E H**

Ogden, Herbert G., U. S. C. and G. Survey, Washington, D. C. (38). 1891. **E**

Ordway, Prof. John M., Tulane Univ., New Orleans, La. (9). 1875. **C**

Orleman, Miss Daisy M., M.D., Peekskill Military Acad., Peekskill, N. Y. (40). 1897. **F**

Orr, William, Jr., 30 Firglade Ave., Springfield, Mass. (39). 1895. **F B**

Osborn, Henry F., Columbia University, New York, N. Y. (29). 1883. **F**

Osborn, Herbert, Ohio State University, Columbus, Ohio (32). 1884. **F**

Osmond, Prof. I. Thornton, State College, Center Co., Pa. (33). 1889. **B A C**

Packard, Dr. A. S., 115 Angell St., Providence, R. I. (16). 1875. **F E**

Paine, Cyrus F., 806 Granite Building, Rochester, N. Y. (12). 1874. **B A**

Palache, Charles, University Museum, Cambridge, Mass. (44). 1896. **E**

Palmer, Prof. Arthur William, Urbana, Ill. (46). 1898. **C**

Pammel, Prof. L. H., Iowa Agricultural College, Ames, Iowa (39). 1892.

G

PARKHURST, HENRY M., 173 Gates Ave., Brooklyn, N. Y. (23). 1874. **A**

Parks, C. Wellman, Civil Eng. U. S. N., care Bureau of Navigation, Washington, D. C. (42). 1897.

Parsons, Prof. C. Lathrop, Durham, N. H. (41). 1896.

Patterson, Geo. W., Jr., 814 S. University Ave., Ann Arbor, Mich. (44). 1896.

Patterson, Harry J., College Park, Md. (36). 1890. **C**

Paul, Prof. Henry M., 2015 Kalorama Ave., Washington D. C. (33). 1885.

A B

Peet, Rev. Stephen D., 5327 Madison Ave., Chicago, Ill. (24). 1881. **H**

Peirce, Prof. Benjamin O., The Jefferson Physical Laboratory, Harvard Univ., Cambridge, Mass. (47). 1898.

Peirce, George James, Stanford University, Cal. (44). 1897. **G**

PENROSE, DR. R. A. F., Jr., Ph.D., 460 Bullitt Building, Philadelphia, Pa. (38). 1890. **E**

Perkins, Prof. George H., Burlington, Vt. (17). 1882. **H F E**

Perry, Arthur C., 226 Halsey St., Brooklyn, N. Y. (43). 1896. **A B**

Peters, Edw. T., P. O. Box 265, Washington, D. C. (33). 1889. **I**

Pettee, Prof. Wm. H., 554 Thompson St., Ann Arbor, Mich. (24). 1875. **E**

Phillips, Prof. Andrew W., 209 York St., New Haven, Conn. (24). 1879.

Phillips, Prof. Francis C., Western University, Allegheny, Pa. (36). 1889.

C

Phillips, Dr. Wm. A., Evanston, Ill. (41). 1895. **H**

Pickering, Prof. Edward C., Director of Harvard Observatory, Cambridge, Mass. (18). 1875. **A B**

- Pierce, Perry Benjamin, U. S. Patent Office, Washington, D. C. (40). 1895. **H**
- Pillsbury, J. E., Lieut. U. S. N., care Dr. W. L. Richardson, 225 Commonwealth Ave., Boston, Mass. (33). 1898. **EB**
- Pillsbury, Prof. John H., Waban, Mass. (23). 1885. **FH**
- Pinchot, Gifford, U. S. Dep't Agric., Washington, D. C. (47). 1899. **G**
- Platt, Franklin, Ass't Geologist, 2nd Geological Survey of Pennsylvania, 1820 Chestnut St., Philadelphia, Pa. (27). 1882. **E**
- Pohlman, Dr. Julius, 378 Franklin St., Buffalo, N. Y. (32). 1884. **EF**
- Pollard, Charles Louis, 1854 5th St., N. W., Washington, D. C. (44). 1899. **G**
- Porter, Prof. James Madison, Lafayette College, Easton, Pa. (45). 1898. **D**
- Powell, Major J. W., Washington, D. C. (23). 1875. **EH**
- Power, Frederick B., Ph.D., 6 King St., Snow Hill, London, E. C., England (31). 1887. **C**
- Prentiss, D. Webster, M.D., 1101 14th St., N. W., Washington, D. C. (29). 1882. **F**
- Prescott, Prof. Albert B., Ann Arbor, Mich. (23). 1875. **C**
- Pritchett, Henry S., Sup't U. S. C. and G. Survey, Washington, D. C. (29). 1881. **A**
- Proctor, Miss Mary, 141 W. 47th St., New York, N. Y. (43). 1898. **A**
- Prosser, Charles S., Ohio State Univ., Columbus, Ohio (33). 1891. **EF**
- Pulsifer, Wm. H., Newton Centre, Mass. (26). 1879. **AH**
- Pupin, Dr. M. I., Columbia University, New York, N. Y. (44). 1896. **B**
- Putnam, Prof. F. W., Peabody Museum, Cambridge, Mass. (10). 1874. **H**
- Ramaley, Francis, Univ. of Colorado, Boulder, Colo. (45). 1899. **G**
- Rathbun, Richard, Smithsonian Institution, Washington, D. C. (40). 1892. **F**
- Raymond, Rossiter W., 99 John St., New York, N. Y. (15). 1875. **EI**
- Rees, Prof. John K., Columbia Univ., New York, N. Y. (26). 1878. **AEB**
- Reese, Charles L., 1801 Linden Ave., Baltimore, Md. (39). 1892. **C**
- Reese, Jacob, 400 Chestnut St., Philadelphia, Pa. (33). 1891. **DB**
- Reid, Harry Fielding, Johns Hopkins Univ., Baltimore, Md. (36). 1893. **B**
- Remsen, Prof. Ira, Johns Hopkins Univ., Baltimore, Md. (22). 1875. **C**
- Reuter, Dr. Ludwig, Merck & Co., Merck Building, University Place, New York, N. Y. (46). 1898. **C**
- Rice, Prof. Wm. North, Wesleyan Univ., Middletown, Conn. (18). 1874. **EF**
- Richards, Prof. Charles B., 137 Edwards St., New Haven, Conn. (33). 1885. **D**
- RICHARDS, EDGAR, 341 W. 88th St., New York, N. Y. (31). 1886. **C**
- Richards, Prof. Robert H., Mass. Inst. of Technology, Boston, Mass. (22). 1875. **D**
- Richards, Mrs. Robert H., Mass. Inst. of Technology, Boston, Mass. (23). 1878. **C**

- Richards, Prof. Theodore William, Harvard Univ., Cambridge, Mass. (47). 1899.
- Richardson, Clifford, Barber Asphalt Paving Co., Long Island City, N. Y. (30). 1884. **C**
- Ricketts, Prof. Palmer C., 17 1st St., Troy, N. Y. (33). 1887. **D A**
- Ricketts, Prof. Pierre de Peyster, 104 John St., New York, N. Y. (26). 1880. **C D E**
- Ries, Heinrich, Ph.B., Ithaca, N. Y. (41). 1898. **E**
- Ripley, William Z., Ph.D., Newton Centre, Mass. (44). 1897. **H I**
- Robinson, Benjamin Lincoln, Curator Harvard Herbarium, Cambridge, Mass. (41). 1893. **G**
- Robinson, Prof. Franklin C., Bowdoin College, Brunswick, Me. (29). 1889. **C D**
- Robinson, Prof. S. W., 1353 Highland St., Columbus, Ohio (30). 1883. **D B A**
- Rockwell, Gen. Alfred P., Manchester, Mass. (10). 1882. **E**
- Rockwell, Chas. H., Box 293, Tarrytown, N. Y. (28). 1883. **A D**
- Rockwood, Prof. Charles G., Jr., 34 Bayard Lane, Princeton, N. J. (20). 1874. **A E B D**
- Rolfs, P. H., Clemson College P. O., S. C. (41). 1899. **G**
- Rominger, Dr. Carl, Ann Arbor, Mich. (21). 1879. **E**
- Rood, Prof. O. N., Columbia University, New York, N. Y. (14). 1875. **B**
- Rosa, Edward Bennett, Wesleyan University, Middletown, Conn. (39). 1892. **A B**
- Rotch, A. Lawrence, Director of Blue Hill Meteorological Observatory, Hyde Park, Mass. (39). 1896. **B**
- Rowland, Prof. Henry A., Baltimore, Md. (29). 1880. **B**
- Rowlee, W. W., Cornell University, Ithaca, N. Y. (41). 1894. **G**
- Runkle, Prof. John D., 1663 Mass Ave., Cambridge, Mass. (2). 1875. **A D**
- Rushy, Henry H., M.D., Coll. of Pharmacy, 211 E. 23d St., New York, N. Y. (36). 1890. **G**
- Russell, Frank, Harvard Univ., Cambridge, Mass. (45). 1897. **H**
- Russell Prof. H. L., Univ. of Wisconsin, Madison, Wis. (41). 1894. **G**
- Russell, I. C., University of Mich., Ann Arbor, Mich. (25). 1882. **E**
- Ryan, Harris J., Cornell University, Ithaca, N. Y. (38). 1890. **B**
- Safford, Dr. James M., Nashville, Tenn. (6). 1875. **E C F**
- Safford, Prof. Truman H., Williamstown, Mass. (41). 1892. **A**
- Salisbury, Prof. R. D., Chicago University, Chicago, Ill. (37). 1890. **B E**
- Sargent, Dudley Allen, M.D., Director of the Hemenway Gymnasium, Harvard University, Cambridge, Mass. (47). 1899. **H**
- Saunders, Charles E., Ph.D., Experimental Farm, Ottawa, Can. (41). 1895. **C**
- Saunders, William, LL.D., F.R.S.C., F.L.S., Canadian Experimental Farms, Ottawa, Can. (17). 1874. **F**

Saville, Marshall H., Amer. Mus. Nat. History, Central Park, New York, N. Y. (39). 1892. **H**

SCHAEBERLE, J. M., Lick Observatory, San José, Cal. (34). 1886. **A**

Schaffner, John H., Ohio State Univ., Columbus, Ohio (48). 1899. **G**

Schlotterbeck, Julius O., Ann Arbor, Mich. (46). 1899. **G**

Schott, Charles A., U. S. C. and G. Survey, Washington, D. C. (8). 1874. **A**

Schwarz, E. A., 230 New Jersey Ave., Washington, D. C. (29). 1895.

F

Schweinitz, Dr. E. A. de, U. S. Dep't Agric., Washington, D. C. (36).

1889. **C**

Schweitzer, Prof. Paul, State Univ. of Missouri, Columbia, Mo. (24).

1877. **C B**

SCUDDER, SAMUEL H., Cambridge, Mass. (13). 1874. **F**

Scull, Miss Sarah A., Smethport, McKean Co., Pa. (40). 1895. **H**

Seaman, W. H., Chemist, 1424 11th St., N. W., Washington, D. C. (23).

1874. **C F**

Searle, Prof. Geo. M., St. Thomas Coll., Catholic Univ., Washington,

D. C. (39). 1891. **A**

See, Horace, 1 Broadway, New York, N. Y. (34). 1886. **D**

Seymour, Arthur Bliss, Cambridge, Mass. (36). 1890. **G**

Seymour, Paul Henry, 479 Second Ave., Detroit, Mich. (44). 1896. **C**

Sharp, Dr. Clayton H., Ithaca, N. Y. (45). 1897.

Sharples, Stephen P., 13 Broad St., Boston, Mass. (29). 1884. **C**

Shattuck, George Burbank, Johns Hopkins Univ., Baltimore, Md. (49).

1899. **E**

Shaw, Prof. James Byrnie, 1030 Grove St., Jacksonville, Ill. (43). 1896. **A**

Sheldon, Samuel, A.M., Ph.D., Polytechnic Inst., Brooklyn, N. Y.

(42). 1894. **B**

Shimer, Porter W., E.M., Ph.D., Easton, Pa. (38). 1889. **C**

Shufeldt, Dr. R. W., Takoma Park, D. C. (40). 1892. **F**

Shutt, Frank T., M.A., F.E.C., F.C.S., Canadian Experimental Farm,

Ottawa, Can. (47). 1898. **C**

Sias, Solomon, M.D., Schoharie, Schoharie Co., N. Y. (10). 1874.

Simon, Dr. Wm., 1348 Block St., Baltimore, Md. (29). 1895. **C**

Simonds, Prof. Frederic W., Univ. of Texas, Austin, Texas. (25). 1888.

E F

Skinner, Aaron Nichols, U. S. Naval Observ., Washington, D. C. (40).

1893. **A**

Smith, Alexander, Ph.D., University of Chicago, Chicago, Ill. (40). 1892.

C

Smith, Prof. Chas. J., 35 Adelbert St., Cleveland, Ohio (32). 1885. **A B**

Smith, Prof. Edgar F., Univ. of Penn., Philadelphia, Pa. (33). 1891. **C**

Smith, Prof. Erastus G., Beloit College, Beloit, Wis. (34). 1887. **C**

Smith, Ernest Ellsworth, 262 Fifth Ave., New York, N. Y. (43). 1898.

Smith, Erwin F., U. S. Dep't Agric., Washington, D. C. (34). 1890. **G**

- Smith, Prof. Eugene A., University, Ala. (20). 1877. **E C**
- Smith, Harlan I., Amer. Mus. Nat. History, Central Park, New York, N. Y. (41). 1896. **H**
- Smith, Prof. Harold B., Polytechnic Inst., Worcester, Mass. (43). 1898. **D**
- Smith, John B., Rutgers College, New Brunswick, N. J. (32). 1884. **F**
- SMITH, Q. CINCINNATUS, M.D., 617 Colorado St., Austin, Texas. (26). 1881. **F**
- Smock, Prof. John Conover, State Geologist, Trenton, N. J. (23). 1879. **E**
- Smyth, C. H., Jr., Clinton, N. Y. (38). 1894. **E**
- Snow, Prof. Benjamin W., 518 Wisconsin Ave., Madison, Wis. (35). 1889. **B**
- Snow, Prof. F. H., Chancellor Univ. of Kansas, Lawrence, Kan. (29). 1881. **F E**
- Snyder, Prof. Harry, 2090 Dooley Ave., Saint Anthony Park, Minn. (44). 1897. **C**
- Snyder, Prof. Monroe B., High School Observatory, Philadelphia, Pa. (24). 1882. **A B**
- Soule, R. H., 71 Broadway, New York, N. Y. (33). 1886. **D**
- Soule, Prof. William, Ph.D., Mount Union College, Alliance, Ohio (33). 1899. **B C E**
- Spalding, Frederick P., Bethlehem, Pa. (46). 1899. **D**
- Spencer, Prof. J. William, 1710 Q St., Washington, D. C. (28). 1882. **E**
- SPENZER, JOHN G., M.D., 370 Central Avenue, Cleveland, Ohio. (37). 1895. **C**
- Spinney, L. B., Iowa State College, Ames, Iowa. (42). 1897. **B**
- Springer, Dr. Alfred, 312 E. 2nd St., Cincinnati, Ohio. (24). 1880. **C**
- Squibb, Edward R., M.D., 152 Columbia Heights, Brooklyn, N. Y. (43). 1896. **.**
- Starr, Frederick, Ph.D., Prof. Univ. of Chicago, Chicago, Ill. (36). 1892. **H E**
- Stearns, Robert E. C., Ph.D., 1025 East Eighteenth St., Los Angeles, Cal. (18). 1874. **F**
- Steinmetz, Chas. Proteus, General Electric Co., Schenectady, N. Y. (40). 1895. **B**
- STEPHENS, W. HUDSON, Lowville, N. Y. (18). 1874. **E H**
- Sternberg, George M., M.D., LL.D., Surgeon-General U. S. A., War Department, Washington, D. C. (24). 1880. **F**
- Stevens, Frank L., Hull Botanical Laboratory, Univ. of Chicago, Chicago, Ill. (44). 1899. **G**
- Stevens, Prof. W. LeConte, Washington and Lee Univ., Lexington, Va. (29). 1882. **B**
- Stevenson, Mrs. Cornelius, 237 S. 21st St., Philadelphia, Pa. (33). 1895. **H**

- Stevenson, Prof. John J., Univ. Heights, New York, N. Y. (36). 1888. **E**
 Stevenson, Mrs. Matilda C., Bureau of Ethnology, Washington, D. C.
 (41). 1893. **H**
 Stieglitz, Dr. Julius, Univ. of Chicago, Chicago, Ill. (39). 1865. **C**
 Stockwell, John N., 1008 Case Ave., Cleveland, Ohio (18). 1875. **A**
 Stokes, Henry Newlin, Ph.D., U. S. Geol. Survey, Washington, D. C.
 (38). 1891. **C E**
 Stone, Ormond, Director Leander McCormick Observ., Univ. of Virginia,
 Va. (24). 1876. **A**
 Story, Prof. Wm. E., Clark University, Worcester, Mass. (29). 1881. **A**
 Stowell, Prof. T. B., Potsdam, N. Y. (28). 1885. **F**
 Strong, Wendell M., 307 Welch Hall, New Haven, Conn. (44). 1899. **A B**
 Sturgis, Wm. C., 384 Whitney Ave., New Haven, Conn. (40). 1892. **G**
 Swingle, Walter T., U. S. Depart. Agric., Washington, D. C. (40). 1892. **G**
 Tainter, Charles Sumner, 1843 S St., N. W., Washington, D. C. (29).
 1881. **B D A**
 Talbot, Henry P., Mass. Instit. of Technology, Boston, Mass. (44). 1896. **C**
 TANNER, PROF. JOHN HENRY, 7 Central St., Ithaca, N. Y. (47). 1899. **A B**
 Taylor, Frank B., 391 Fairfield Ave., Fort Wayne, Ind. (39). 1897.
 Tesla, Nikola, L.L.D., 55 W. 27th St., New York, N. Y. (43). 1895. **B**
 Thomas, Benjamin F., State Univ., Columbus, Ohio. (29). 1882. **B A**
 Thomas, Prof. M. B., Crawfordsville, Ind. (41). 1894. **G**
 Thompson, Joseph Osgood, Amherst, Mass. (41). 1893.
 Thomson, Elihu, Swampscott, Mass. (37). 1888. **B**
 Thomson, Wm., M.D., 1426 Walnut St., Philadelphia, Pa. (33). 1885. **B**
 Thornburg, Charles L., Lehigh Univ., S. Bethlehem, Pa. (44). 1897. **A**
 Thruston, Gates Phillips, Nashville, Tenn. (38). 1890. **H**
 Thruston, R. C. Ballard, care Ballard & Ballard Co., Louisville, Ky. (36).
 1896. **E**
 Thurston, Prof. R. H., Sibley Coll., Cornell Univ., Ithaca, N. Y. (23).
 1875. **D**
 Tittmann, Otto H., U. S. C. and G. Survey, Washington, D. C. (24).
 1888. **A**
 Todd, Prof. David P., Director Lawrence Observ., Amherst Coll., Am-
 herst, Mass. (27). 1881. **A B D**
 Todd, Prof. James E., Box 22, Vermilion, S. Dak. (22). 1886. **E F**
 Tooker, William Wallace, Sag Harbor, N. Y. (43). 1895. **H**
 Traphagen, Frank W., Ph.D., Bozeman, Montana. (35). 1889. **C F E**
 Trelease, Dr. Wm., Director Missouri Botanical Gardens, St. Louis, Mo.
 (39). 1891. **G**
 Trenholm, Hon. W. L., President American Surety Co., 160 Broadway,
 New York, N. Y. (35). 1896.
 True, Fred W., U. S. National Museum, Washington, D. C. (28). 1882. **F**
 Tucker, Willis G., M.D., Albany Medical College, Albany, N. Y. (29).
 1888. **C**

- TUCKERMAN, ALFRED, Ph.D., 342 W. 57th St., New York, N. Y. (39). 1891. **C**
- Tuttle, Prof. Albert H., Univ. of Virginia, Charlottesville, Va. (17). 1874. **F**
- Twitchell, E., Wyoming, Ohio (39). 1891. **C**
- Uhler, Philip R., 254 W. Hoffman St., Baltimore, Md. (19). 1874. **F E**
- Underwood, Lucien M., Columbia Univ., New York, N. Y. (33). 1885. **G**
- Upham, Warren, Minnesota Hist. Soc., St. Paul, Minn. (25). 1880. **E**
- Upton, Winslow, Ladd Observatory, Providence, R. I. (29). 1883. **A**
- Van Dyck, Prof. Francis Cnyler, New Brunswick, N. J. (28). 1882. **B C F**
- Van Hise, Charles R., University of Wisconsin, Madison, Wis. (37). 1890.
- Van Vleck, Prof. John M., Wesleyan Univ., Middletown, Conn. (23). 1875. **A**
- Venable, Prof. F. P., Chapel Hill, N. C. (39). 1891. **C**
- Verrill, Prof. A. E., New Haven, Conn. (47). 1898. **F**
- Vining, E. P., 49 2nd St., San Francisco, Cal. (32). 1887. **H**
- Vogdes, Capt. A. W., 5th Artillery, San Juan, Porto Rico, W. I. (32). 1885. **E F**
- Voorhees, Louis A., P. O. Box 290, New Brunswick, N. J. (43). 1895. **C**
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- Waite, M. B., Dep't of Agriculture, Washington, D. C. (37). 1893. **G**
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- Waldo, Prof. Clarence A., Purdue University, Lafayette, Ind. (37). 1889. **A**
- Waldo, Leonard, S. D., 57 Coleman St., Bridgeport, Conn. (28). 1880. **A**
- WALLER, E., 7 Franklin Place, Morristown, N. J. (23). 1874.
- Ward, Prof. Henry A., 620 Division St., Chicago, Ill. (13). 1875. **F E H**
- Ward, Prof. Henry B., Univ. of Nebraska, Lincoln, Nebr. (48). 1899. **F**
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- Ward, Dr. R. H., 53 Fourth St., Troy, N. Y. (17). 1874. **G F**
- Warder, Prof. Robert B., Howard Univ., Washington, D. C. (19). 1881. **C B**
- WARNER, JAMES D., 463 E. 26th St., Flatbush, Brooklyn, N. Y. (18). 1874. **A B**
- Warner, Worcester R., 1722 Euclid Ave., Cleveland, Ohio (33). 1888. **A B D**
- Warren, Dr. Joseph W., Bryn Mawr Coll., Bryn Mawr, Pa. (31). 1886. **F**
- Warren, Prof. S. Edward, Newton, Mass. (17). 1875. **A-I**
- Washington, Dr. Henry S., Locust, N. J. (44). 1897. **E**
- WATSON, PROF. WM., 107 Marlborough St., Boston, Mass. (12). 1884. **A**
- Wead, Charles K., U. S. Patent Office, Washington, D. C. (47). 1898. **B**
- Weber, Prof. Henry A., Ohio State Univ., Columbus, Ohio (35). 1888. **C**
- Webster, Prof. Arthur Gordon, Clark Univ., Worcester, Mass. (47). 1898. **B A**

- Webster, F. M., Wooster, Ohio (35). 1890. **F**
- Webster, Prof. N. B., Vineland, N. J. (7). 1874. **B C E**
- Weed, Clarence M., Durham, N. H. (38). 1890. **F**
- Weston, Edward, 645 High St., Newark, N. J. (33). 1887. **B C D**
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- Whitfield, J. Edward, 406 Locust St., Philadelphia, Pa. (44). 1896. **C**
- Whitfield, R. P., Amer. Mus. Nat. History, Central Park, New York, N. Y. (18). 1874. **E F H**
- Whiting, Miss Sarah F., Wellesley Coll., Wellesley, Mass. (31). 1883. **B A**
- Whitman, Prof. Charles O., Univ. of Chicago, Chicago, Ill. (43). 1898. **F**
- Whitman, Prof. Frank P., Adelbert Coll., Cleveland, Ohio (33). 1885. **B A**
- Wilbur, A. B., Middletown, N. Y. (23). 1874. **E**
- Wiley, Prof. Harvey W., U. S. Dep't. Agric., Washington, D. C. (21). 1874. **C**
- Williams, Benezette, 171 La Salle St., Chicago, Ill. (33). 1887. **D**
- Williams, Charles H., M.D., 15 Arlington St., Boston, Mass. (22). 1874.
- Williams, Prof. Edw. H., Jr., 117 Church St., Bethlehem, Pa. (25). 1894. **E D**
- Williams, Francis H., M.D., 505 Beacon St., Boston, Mass. (29). 1890.
- Williams, Prof. Henry Shaler, Yale Univ., New Haven, Conn. (18). 1882. **E F**
- Williams, Prof. Thomas A., U. S. Dep't Agric., Washington, D. C. (42). 1894. **G**
- Willis, Bailey, U. S. Geol. Survey, Washington, D. C. (36). 1890.
- Willoughby, Charles C., Peabody Museum, Cambridge, Mass. (45). 1897. **H**
- Willson, Prof. Frederick N., Princeton, N. J. (33). 1887. **A D**
- Willson, Robert W., Cambridge, Mass. (30). 1890. **B A**
- Wilson, Joseph Miller, Room 1030, Drexel Building, Philadelphia, Pa. (33). 1886. **D**
- Wilson, Robert N., Macleod, Alberta, Can. (42). 1895. **H**
- Wilson, Thomas, LL.D., U. S. National Museum, Washington, D. C. (36). 1888. **H**
- Wilson, Prof. William Powell, Philadelphia Com. Museum, 233 S. 4th St., Philadelphia, Pa. (38). 1889. **G**
- Winchell, Horace V., Butte, Montana. (34). 1890. **E C**
- Winchell, Prof. N. H., Univ. of Minnesota, Minneapolis, Minn. (19). 1874. **E H**
- Winterhalter, A. G., Lt. U. S. N., care U. S. Navy Dep't, Washington, D. C. (37). 1893. **A**

- Withers, Prof. W. A., Agric. and Mechan. Coll., Raleigh, N. C. (33). 1891. **C**
- Witthaus, Dr. R. A., 414 E. 26th St., New York, N. Y. (35). 1890.
- Wolff, Dr. J. E., 15 Story St., Cambridge, Mass. (36). 1894. **E**
- Woll, Fritz Wilhelm, Madison, Wis. (42). 1897. **C**
- Woodbury, C. J. H., Amer. Bell Telephone Co., 125 Milk St., Boston, Mass. (29). 1884. **D**
- Woodhull, John Francis, Teachers' Coll., Morningside Heights, New York, N. Y. (43). 1899.
- Woodman, Dr. Durand, 80 Beaver St., New York, N. Y. (41). 1896.
- Woods, Albert F., U. S. Dep't Agric., Washington, D. C. (43). 1897. **G**
- Woodward, Prof. Calvin M., Washington Univ., St. Louis, Mo. (32). 1884. **D A I**
- Woodward, R. S., Columbia Univ., New York, N. Y. (33). 1885. **A B D**
- Woodworth, William McMichael, Ph.D., 149 Brattle St., Cambridge, Mass. (44). 1898. **F**
- Wright, Prof. Albert A., Oberlin Coll., Oberlin, Ohio (24). 1880. **E F**
- Wright, Prof. Arthur W., Yale Univ., New Haven, Conn. (14). 1874. **A B**
- Wright, Carroll D., LL.D., Dep't of Labor, Washington, D. C. 1894. **I**
- Wright, Rev. Geo. F., Oberlin College, Oberlin, Ohio (29). 1882. **E H**
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- Young, C. A., Princeton University, Princeton, N. J. (18). 1874. **A B D**
- Zalinski, E. L., U. S. A., Century Club, 7 W. 43d St., New York, N. Y. (36). 1891. **D**
- Ziwet, Alexander, 644 S. Ingalls St., Ann Arbor, Mich. (38). 1890. **A**

[817 HONORARY FELLOWS AND FELLOWS.]

Summary : Patrons, 2 ; Members, 931 ; Honorary Fellows, 2 ; Fellows, 815.

June 15, 1900. Total number of Members of the Association, 1750.

NOTE.—The omission of an address in the foregoing lists indicates that letters mailed to that last printed were returned as uncalled for. Information of the present address of the members so indicated is requested by the PERMANENT SECRETARY.

